AMERICAN

JOURNAL OF INSANITY.

VOL. XLV. JANUARY, 1889. No. III.

UTICA, N. Y.

STATE LUNATIC ASYLUM.

Ellis H. Roberts & Co., Printers, 60 Genesee Street, Utica.

[Entered at the Post Office at Utica, and admitted for transmission through the Mails at second class rates.]

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For Table of Contents see third page.

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TABLE OF CONTENTS.

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ON A CASE OF SHOCK; WITH SOME OBSERVATIONS ON THE VASO-MOTOR SYSTEM.

BY HENRY SMITH WILLIAMS, M. D.,
Assistant Physician, New York City Lunatic Asylum, Blackwell's Island.

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a firm clot almost completely filling the fourth ventricle. Quite evidently, an excessive hyperæmia of the encephalon, with general capillary hemorrhage, was the immediate cause of death.

Such, in brief, are the facts of a case which, in view of the distinct pathological conditions noted, and of the obscurity of the subject, would seem to be of more than passing interest. It remains to find, for the observed phenomena, an explanation consistent with the established facts of experimental physiology.

Modern pathology advances the idea that "shock" is, scientifically stated, the result of a vaso-motor paresis or paralysis—more particularly a paralysis of the heart. But here was a case of undoubted shock, in which there is known to have been no weakening of the heart, but, quite to the contrary, the most active excitation of that organ to the very last. There was, however, an undoubted vaso-motor paralysis of the vessels of the head. Can pathology account for so seemingly anomalous a condition? Let us see.

Most physiologists of the present day locate—or admit—a centre of vaso-motor action, in the floor of the fourth ventricle. According to Ferrier, this centre undoubtedly has to do with the region innervated by the splanchnics, and with the vessels of the head and neck, but is doubtfully connected with any other portion of the body. The most authoritative opinion, in general, is that this centre connects the abdominal and cervical areas, while the various segments of the cord preside over corresponding regions of the body. An explanation of our case will, then, very naturally utilize the medullary centre.

Admitting—for the time being—the vaso-motor action of this centre, two alternative theories present themselves, in explanation of the case. These hypotheses are:

(1.) That the stimulus from the solar plexus (where the blow was doubtless received), passed up the splanchnics, and *in part* to the vaso-motor centre, in the medulla, stimulating it directly, and through its influence, indirectly affecting all the spinal centres, thus producing a general constriction of the arteries; but sent also a vibration directly up the cervical sympathetic, with such force as to paralyze the cerebral vessels.

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balance held by State Hospitals amounted, October 1, 1887, to $230,166.58, and had steadily increased from $84,914.33 on October 1st, 1885.)

Second. What appropriations, if any, are required for each hospital for the ensuing two years, and could the cost of maintenance be judiciously reduced?

Third. The formation of a new hospital district and the erection of a new hospital or the enlargement of the accommodations in and about the present institutions.

Fourth. Would the efficiency of the hospital service be improved by a large and more intelligent class of attendants?

Fifth. Should the chronic insane be furnished with separate accommodations in detached buildings adjacent to the present State hospitals or otherwise?

Sixth. What provision should be made for idiots, etc.?

VERMONT.—Dr. A. J. Willard, of Burlington, has erected a new building for his Nervine Establishment.

WISCONSIN.—Walter S. Fleming resigned as first assistant at Winnebago, Wis., on June 1st; appointed first assistant at St. Johnland, L. I., July 25, 1888.

J. A. Bangs was appointed first assistant at Winnebago, and Dr. Wegge, of Racine, second assistant, on July 1st, 1888.

GREAT BRITAIN.—At the City of London Lunatic Asylum last July, a nurse narrowly escaped death at the hands of a madman. The following evidence was given before the presiding magistrate at the Dartford Police Court.

Eliza Hopkins: I am one of the night assistants at the City of London Lunatic Asylum, at Stone. This morning, about six minutes past two, I was going my ordinary round, and was in the corridor of No. 9 gallery. I went into one padded room and as I came out I saw that the door of the second one was open. I went to close it but when I touched the handle I noticed that there was wet blood upon it. I looked round and saw prisoner crouched in the corner beside the door, with the white-handled razor produced, in his hand. I had a lamp in my hand and I was so frightened that I threw it down and ran back to the Infirmary where I had started from. I screamed for help as I went. I was quite alone. Prisoner did not speak to me but followed and knocked me down. He knocked me down in a room full of patients and tried to get at my throat. He had the open razor in his hand all the time but could not get at my throat in consequence of a shawl I had tied round my head. Prisoner put his knee on my chest, but after several attempts I managed to get the razor out of his hand and threw it under one of the patient's beds. I was screaming whilst on the ground, and prisoner then tried to strangle me. I begged him not to take my life, and told him that I would then leave off screaming. Another night nurse then came to my assistance, and pulled prisoner from off me. Prisoner all this time said nothing. I have only seen him but once before although he has been a patient in the asylum. I ran for assistance as soon as I could get up.

Cross-examined by the Prisoner: You said you took the razor from my hand. I can prove that I kept possession of it the whole time. I intended to

kill Miss Bragg and as soon as I found I had attacked the wrong party I let you go.

Miss Agnes Thacker said: I am also a night attendant at the asylum. I have heard the evidence given by the last witness and it is quite true. I came to her assistance in consequence of hearing her scream and pulled the prisoner from off her. I could not see him when I first went into the room because they were nearly under a patient's bed. I was attracted to them by the last witness' screams. Prisoner had not a razor in his hand at the time but I afterwards saw him pick it up from under the bed. I struggled with him for full eight minutes. Prisoner tried to strangle me, but when he found out who I was he said he would not injure me. He said he wanted to kill Nurse Bragg. The last witness ran away for assistance when I got prisoner from off her. Prisoner pinched me and kicked me in the side. He was smothered in blood and I also got covered with blood. His hands were bleeding very much. I got away from the prisoner as soon as I could, and another night attendant, I believe it was Nurse Jones, came to assist. I ran to the special dormitory to prevent the prisoner from getting there and he followed.

The Prisoner: The razor never left my right hand. I kept possession of it all along.

Dr. Greenlees said: I was called up by the head attendant shortly after two o'clock this morning. I was taken to the infirmary where I found the prisoner sitting on the table swinging the razor (produced) about. Prisoner explained the whole matter and said he had been disappointed in not finding the nurse he wanted to kill. I kept him in conversation for some time, having previously sent for assistance. I knew it would be useless to attempt to tackle the man with an open razor in his hand, but presently he shut it up, placed it in the case and put it in his pocket. I then told the attendants to seize him and they did so and secured him. The window in the female corridor on the ground floor was broken. The sash was also broken in two places; there would be plenty of room for prisoner to have got through. He has done so before. Prisoner has been an inmate of the asylum twice whilst I have been there. The last time he was there it was found that he was chargeable to a Middlesex Union, and the prisoner was transferred to one of the Middlesex Asylums. I do not know whether the prisoner has escaped or whether he has been discharged. Prisoner also had a knife in his pocket.

Prisoner, who is thought to cherish feelings of revenge against Nurse Bragg because she once reported him for misconduct, and who still avows his intention of killing her, was remanded until Saturday.

The prisoner was tried at the Maidstone Assizes and on Dr. Greenlees' evidence was sent to the Broadmoor Asylum for Criminal Lunatics "during Her Majesty's pleasure."

Thos. N. Dewees

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One or the other of these hypotheses will doubtless seem sufficiently tenable to those who believe in the vaso-motor action of the medullary centre in question. But there are certain facts in experimental physiology—strongly corroborated, furthermore, by reasoning from analogy—that seem to point to this centre as not being vaso-motor at all, but, exactly to the contrary, vaso-inhibitory instead. If the experiments of Dastre and Merat (as cited by Ferrier*) are to be relied upon, stimulation of the spinal nerves that join the ganglia of the cervical sympathetic—that is to say, of the tracts leading from the medullary centre—causes dilatation of the vessels of the head; or, to make the application of these observed phenomena, energizing of the "vaso-motor" centre inhibits the normal constrictive action of the sympathetic ganglia. Ferrier himself cites the above experiment, and points out the remarkable analogy thus demonstrated between cardiac inhibition by the vagus and arterial inhibition from stimulation of "certain nerves," but, for some inexplicable reason, he does not make explicitly the general application which is implicitly contained in his remarks. There would seem to be no avenue of escape, however, if we accept the experiment as conclusive, from the belief that the medullary centre is really a centre of vaso-inhibition (through interference with the ganglia of the sympathetic); and that the sympathetic ganglia are the ultimate vaso-motor centres proper—unless indeed, as some authorities maintain, there be vaso-motor centres also in the cerebral cortex itself; which latter theory, while it must be allowed to be a very plausible one, need not enter into the present discussion. That the sympathetic ganglia really are centres of vaso-constriction, was long since demonstrated by Vulpian and others; that they are in a sense *ultimate* centres, subject only to the controlling influence of a medullary centre, is a supposition recommended at once by its consistency with what we know of cerebral action in other directions; doubly supported, by being, I believe, in harmony with every observed fact of experimental physiology; and rendered almost indubitable by the non-existence of any other theory that rationally explains all the established phenomena of physiological and pathological vaso-dynamic action.

In consideration of the morphological consistency which everywhere pertains in the organism, it must be supposed that the spinal centres exert a similar inhibitory action over the dorsal and lumbar ganglia. As already mentioned, the visceral ganglia have

* Functions of the Brain, p. 102-3.

an intimate connection with those of the head. This relation is sufficiently proven by numberless facts of physiology and pathology. Were further evidence needed, the case which furnishes the text for the present article would, of itself, be almost demonstrative. Space forbids that I should enter into an elaborate discussion of this theory of medullary inhibition, with all of its application, most of which will naturally suggest themselves. A little study will, I think, convince anyone that the hypothesis exhibits the consistency above claimed for it. One observed fact, however, seems, at first glance, to be antagonistic—namely, the general arterial dilatation that follows complete severance of the cord just below the medulla. Aside, however, from the extremely diversified effects of so severe a lesion, which must militate against the acceptance of such an experiment as conclusive evidence regarding any single function, it is easily comprehensible that, all inhibitory influence over the sympathetic ganglia being suddenly eliminated, these centres should energize so actively as to almost immediately exhaust themselves, producing, momentarily, an excessive constriction of the vessels, followed by a more permanent dilatation from paralysis. The important fact that the arteries are admitted to subsequently regain their tone, and to do so, in the lower vertebrates, even when the cord itself is removed, seems almost beyond cavil to substantiate this explanation. In connection with what was just said regarding the unreliability of the symptoms immediately following so severe a lesion, except as considered in their totality, it should not be overlooked that the advocates of a medullary vaso-motor centre when citing this experiment altogether ignore, for the time being, the spinal centers, though perhaps, at other times, admitting them on almost an equal footing with the one in the medulla.

Having thus briefly presented this theory of medullary vaso-inhibition, it remains to make the application to the observed phenomena of the case in hand. In doing this, I shall endeavor to concisely suggest rather than to elaborate details. Briefly stated, I conceive the following to be the *rationale* of the phenomena: Force applied to solar ganglia; stimulus to vaso-inhibitory and cardio-inhibitory centre, through splanchnic; reflex (inhibitory) stimulation of cervical sympathetic: with resulting relaxation of cerebral vessels, and momentary systolic paralysis of heart. Meantime, no change, or only slight reflex stimulation and increased inhibitory influence in spinal centres. During the

momentary cessation of heart beat, blood ceased to flow—because static—in the relaxed cerebral vessels, and the man fell forward, unconscious. Meanwhile, the systemic arteries, still retaining a certain tone, drove the blood through their capillaries, complete stasis resulting only in the brain. Immediately, the relaxed cavities of the heart were filled with blood; and that organ must contract or be permanently paralyzed. Probably in case of a very weak heart, the latter result often occurs, and death from shock is generally thus explained. But the intrinsic ganglia of a strong heart may overcome the inhibitory influence of the vagus, (which influence, furthermore, is proved by experiment soon to cease through conductive exhaustion of the nerve itself), and in the present case, they did so, causing the heart again to contract with great vigor. Consider what must now happen. The systemic vessels in general, having had, for a moment, no blood forced into them, are contracted to a very small calibre, their walls having a considerable intrinsic tone; while the cerebral vessels, on the other hand, are completely *atonic*, from the inhibitory influence of the medullary centre on their controlling ganglia. The blood from the renewed heart beat, then, finding a constricted outlet in most directions, will be forced toward the point of least resistance—the cranium—and will come against the unresisting vessels here with a shock comparable, in its effects upon the delicate cerebral tissues, to a blow from without. Rapid dilatation must ensue, until the vessels are distended to their utmost capacity; such dilatation being, of course, purely passive, as there exists no mechanism for active increase in caliber of an artery. With this congested condition of the brain, began, doubtless, the convulsive action of the muscles of the body. Such action must still further quicken the circulation, and stimulate the heart beat.

It needs not, however, to assume any excessive action of the heart, nor yet a great increase in the blood-pressure to give rise to excessive lateral pressure in the distended cerebral vessels. Suppose the arteries of the brain to have dilated to twice their average ordinary diameter. During the process of dilatation, there would be slowing of the blood current, and decrease of pressure; with full distension, the current would resume a rapidity commensurate to that in the tributary arteries, and the pressure would be almost immediately equalized, varying but little from what it was before,—that is to say, pressing with the same amount of force as before upon each square millimeter of arterial surface. But since this

surface is, by hypothesis, increased by one hundred per cent, the aggregate lateral pressure which any given artery must sustain is similarly doubled. Of course, the exact amount of pressure that would be borne without injury to those vessels may vary widely; but the cerebral vessels are always among the most delicate in the system. In this particular case, the pressure was too great for them, and, as we have seen, a general laceration occurred. I am very much inclined to believe, however, that in ordinary cases, a reactionary exhaustion of the medullary centre or of its conducting tracts, such as is known to occur in case of the cardio-inhibitory apparatus, would permit the cervical ganglia to exert their vasomotor influence before actual laceration of the arteries had occurred; thus preventing permanent injury to the brain. Only by such a supposition can I account for the observed termination in complete recovery of most cases of shock from abdominal concussion.

This observation is equivalent to a tacit predication of abnormality in the walls of the cerebral vessels in this particular case. But this is by no means an altogether gratuitious assumption; for, although this particular brain was unfortunately, by an accident during preservation, rendered useless for microscopical investigation, yet a personal examination of the brains of many cases of terminal dementia, in no one of which have I failed to find pathological changes in the cerebral arterioles, justifies me, I think, in believing that such abnormalities existed here also.

In my opinion, then, the same blow which caused the death of this man would not have proven fatal to a person with healthy tissues; so after all, in this view, the case does not present an exception to the observation in Ashhurst which is quoted early in the present article. The particular seat of disease in this case, however, probably lies altogether outside the parts (chiefly, I doubt not, the heart,) which the author there had in mind when he postulated a "healthy man."

Throughout the present discussion I have purposely refrained from referring to the probable condition of the blood-vessels in the viscera, as such reference would needlessly have complicated the subject. It may not be amiss, however, to add here that theoretical considerations coincide with observed experimental facts, to prove that blows in the epigastric region produce fullness of the visceral vessels. It is probable, therefore, that in the present case, a congestive dilatation of the abdominal vessels almost immediately followed the injury. But it has been proven

by recent experiments, that the entire vascular area of the abdomen is capable, when fully dilated, of holding less than one-sixth of the entire normal quantity of the blood—an excess over the usual supply that would doubtless modify somewhat the general blood-pressure and the cerebral circulation, but not sufficiently to be essential in preventing encephalic injuries due to complete relaxation of the cranial vessels. With reactionary failure of the medullary centre—already assumed above—there would occur constriction of these visceral vessels, and, with this, the closure of the last slight outlet to the over-full, and perhaps already bursting, cerebral vessels. While I thus regard the condition of the abdominal vessels as of secondary importance in this extreme case of cerebral vascular paralysis, I am fully convinced that, in ordinary conditions of physiological action, the reciprocal relations of visceral and cranial circulation are of utmost importance in the economy. A discussion of this question, however, would carry us far beyond the limits of the present paper.

As a purely gratuitous suggestion in connection with this case, it has occurred to me to ask myself whether a shock of just the right severity might not cause the great solar ganglion to act so vigorously as to disregard the inhibitory stimulus reflected to it from the medullary centre, and thus, from the very first to produce its natural constrictive action, regardless of the interference from above. I offer this merely as a suggestion worthy of experimental demonstration or refutation.

Either theory is consistent with the facts of the autopsy, which revealed not the slightest hyperæmia of any of the viscera. In this connection, however, I do not overlook the fact that there are many persons who refuse to place any dependence upon the condition of the blood-vessels, if non-inflammatory, a few hours after death, believing that post-mortem changes will rapidly obliterate or alter the ante-mortem condition. Be this as it may, I repeat that the above observations on the visceral circulation I regard as mainly theoretical assumptions, incidental to the main argument. But the essential portions of the hypotheses by which I have endeavored to explain this case are, I think, well grounded in physiological and pathological facts already observed. Whatever may be thought of the explanation, however, the pathological conditions at least remain; and we must recognize, as has not heretofore been done, the certainty that shock due to abdominal concussion may cause death by other means than the "paralysis of a distended heart."

LUNACY LEGISLATION, AS PROPOSED BY DR. STEPHEN SMITH AND OTHERS.*

BY WALTER CHANNING, M. D.,
Brookline, Mass.

The "Report on the Commitment and Detention of the Insane," presented at the Buffalo National Conference of Charities in July, 1888, by a committee of which Dr. Stephen Smith, of New York, was chairman, is well considered, and temperate, almost judicial in tone. While glad to commend so admirable a document, I feel, however, that it is open to extended criticism from what might be called, perhaps, the medical point of view.

Laws for the insane are largely made by the laity, and derive their tone from them to a large degree, and hence we have cumbersome laws worded after the manner of a penal code, and the insane man is made into an offender against a social law, if not a moral one, for which he must be committed to an institution which, if we are to judge of it by what the statutes say, must be a kind of prison with corrupt and inefficient officials.

Now the history of insane hospitals does not justify such rigid and restrictive laws of admission and treatment. The few, very few cases of proved bad management of hospitals under the charge of medical men do not justify them.

We must remember also that these laws help to keep alive the spirit of distrust and suspicion with which the public view the lunatic hospitals.

Returning however to Dr. Smith's report, I doubt whether at the present time it is possible or desirable to establish uniform lunacy laws for all the States. In certain directions, perhaps, where the States naturally harmonize, there may be uniformity, but I do not believe in retarding progress in Massachusetts for the sake of accelerating it in some western State. It is hardly natural to expect a community of sudden and crude development, with ill-digested notions, or no notions at all of political or social economy, to adopt advanced views on subjects which require culture and refinement. To be effective laws should not be much beyond the grasp of the people. Poor laws enforced may be better in the end than good laws which are practically a dead letter, as they will pretty surely lead to the adoption of better ones.

*Read at the meeting of the New England Psychological Society, October 9, 1888.

Dr. Smith's proposition II reads "No insane person should be deprived of his liberty unless restraint is necessary, expedient, beneficial or remedial." This proposition, which appears to be only the statement of a truism, need not be criticised unless we are disposed to quibble, and that I shall not do in this place.

Proposition III is correct in stating that "It is necessary to commit to custody the insane who perpetrate acts dangerous to themselves, to the public or to property," but proposition IV, that "It is expedient to commit to custody the insane who show by threats or otherwise dangerous tendencies, or uncontrollable propensities toward the perpetration of crime," is unfortunate in its use of the word expedient. If we were able to investigate many of the homicides and suicides constantly occurring, we should find that they were committed by just this class mentioned in proposition IV, and if the friends had been influenced less by expediency, they might have averted many of these unfortunate occurrences. Expediency which suggests policy and circumlocution, and indirectly dangerous delay and vacillation, I would therefore omit altogether, and put in its place necessary. In other words, I would incorporate proposition IV into number III.

Proposition VI says: "It is advisable to commit those insane to custody for remedial purposes whose disease is in such a stage that the restraint, discipline or therapeutical measures of an institution will tend more effectually to secure recovery than the conditions under which they live."

This proposition seeks to be eminently just to that class of the insane who, as far as society is concerned, do not absolutely require hospital restraint, but to my mind its wording is most unfortunate, for it does not clearly bring out the immense importance of early hospital treatment. The most vital proposition in reference to the treatment of the insane should be the one bearing on early commitment to the hospital, as all physicians know who are familiar with recovery statistics. Time gained in the early stages of the attack means almost certain recovery, while on the other hand, a few months lost means incurability, with the sad consequences attached to chronic insanity.

As lay readers who are unfamiliar with the treatment of the insane may read and be influenced by Dr. Smith's paper, I regret that he has not emphasized the necessity of early hospital treatment, instead of mildly suggesting the advisability of commitment for "remedial purposes."

A proposition like the following would seem to be demanded in

any set of perfect propositions: "It is of the utmost importance that all persons becoming insane should be placed under treatment as soon as the disease is recognized, as in the large majority of cases it is curable in the early stages. Unless treatment at home or in a private dwelling is such as meets the highest scientific standard, the insane person should be committed without delay to a properly organized insane hospital."

Propositions IX and X, which relate to certain steps in the process of commitment, are far from being desirable, in my opinion, without considerable modification. Proposition IX says: "The application should be made to a judge of a court of record when practicable; but if delay would thereby result, the application should be made to any justice of the peace."

The application should only be made to a judge of a court of record. There should be no such expression as "when practicable." It would not be practicable if the judge was at dinner, or had gone fishing or to a wedding, perhaps, but the time of some judge should always be so arranged that it will be practicable to reach him. The necessities of the insane must be first considered, and judges' office hours second.

I do not think justices of the peace would do as well as judges of courts of record; neither do I agree with Dr. Smith that they can receive and act upon what is unfortunately called the complaint with perfect propriety. From my observations of this class of men, I should say they were not qualified either by experience or education to assume judicial functions in reference to the insane.

I have no criticism, of course, to offer on them in any other capacity.

Proposition X reads: "Upon receiving such application the judge or justice should forthwith, by an order in writing, direct two qualified physicians personally to examine the alleged insane person, and report under oath the results of such examination with their recommendation." This proposition appears to me wholly unnecessary. It would seriously add to the red tape in the process of commitment, and hence occasion delay. Furthermore, the requirements to be possessed by the examining physicians can be established by statute, as is the case in New York, with equally satisfactory results. A justice of the peace would hardly be the person to judge whether a physician was qualified or not.

As Dr. Smith rightly says in his remarks on proposition X, "The medical evidence is one of the most important features in the process of commitment." He might have called it the most im-

portant feature. He adds—"The fate of the insane person turns upon the ability of the medical examiner rightly to determine whether or not he is suffering from insanity."

After all the most elaborate preparations have been made, and precautions taken in the way of restrictive laws, the insane person reaches the hospital through the physician's certificate. It is the medical man who really determines the nature of the disease, and recommends treatment. To him is given the decision of the case, for he is the only one competent to pass upon it. We cannot evade this state of affairs, and yet our lunacy law-framers appear to be striving to make the physicians' evidence similar to that of the ordinary witness, the mental disease of the insane person being finally passed upon as if it were in the nature of an offense against laws, which the judicial mind only was capable of grasping.

This is, in my opinion, as I have stated elsewhere, the wrong attitude for the law to assume. The legal rights of the insane can be preserved without a judicial commitment to a hospital. Laws for the care and treatment of the insane must be founded on medical experience and knowledge, not on ordinary experience and knowledge. The qualifications of the physician, the character of the medical examination, the form of the certificate, all of these and other minor matters, can be laid down in statutes.

It will then be the province of the law to see that these statutes have been complied with, and judges can signify their approval of the admission papers of patients to insane hospitals, by signing a properly worded form.

This is what is actually now largely done in Massachusetts, though perhaps judges would be inclined to think I wrongly stated their position. To be sure they fill out quite an extended commitment blank, and ask a few questions of the physicians who have examined the alleged insane person, but after all it is the character of the physicians, and the proper filling out of their certificates, which determine their line of action. They say, "Yes, these certificates and application appear to be properly filled in; these physicians are men of good standing; they say this person described is insane; we approve of this decision, though we have not seen the patient, as we often do not, having confidence in the physicians, and it is not a very pleasant business to look at these sick people, who we are told are insane, but may, or may not be, as far as our own knowledge of insanity is concerned. We know nothing of the applicant, he may have had no connection with the patient, but we are satisfied that this person named here in the

papers is insane, and will take upon ourselves, as the law obliges us to, though it is rather absurd, as it properly belongs to the physicians, the responsibility of sending him to any hospital the friends may select."

I hope the day will eventually come, when our laws will be made to correspond with what we actually do. When this day arrives, while our judges will act very much as they do at present, the public, at least, will be surprised to find that the statute name for what they do, will be modified, or radically changed.

Going on now to proposition XIV, we find the suggestion made that the alleged insane person should be fully informed of the action to be taken against him, "on the conclusion of these proceedings, and the completion of the order of commitment." And a jury can be summoned if the alleged insane person, or his friends wish it. Also if the patient, or any friend on his behalf is dissatisfied with the order of commitment, an appeal may be made to a justice of a higher court than the one signing the order.

I do not approve of either the first or the last part of this proposition. There are often cases where it may be not only injudicious, but dangerous to explicitly inform the patient, while he has practically unrestricted liberty, that certain proceedings are being taken against him. A more general law which should state that deception was not justifiable with the insane, and that they should be informed of any proposed plan of treatment, in every case possible without detriment to them, or danger to friends, might possibly cover the points mentioned in the proposition. But after all, these are matters which should be left to the discretion of the insane person's family and physicians. Each case must be treated as circumstances demand, and legislation will probably do more harm than good.

In the remarks Dr. Smith makes upon this proposition, he recognizes the liability of the patient to become excited and dangerous. "But," he thinks "if he is informed after the commitment papers are completed and the order made, he is already under legal control and necessary restraint." I think Dr. Smith errs in what he says here, for very frequently the patient is not under the necessary restraint, until he actually reaches the hospital. The papers may be made out several days in advance, and during this time it is difficult, often impossible, for the friends to preserve the necessary degree of restraint,

In my opinion Dr. Smith has selected the wrong time for notifying the patient of the legal proceedings, if it is done for the

purpose of allaying the sense of injury the patient may feel at being committed, and the time gained does not off-set the mistake. To accomplish Dr. Smith's object, the first step should be to notify the alleged insane person of the proposed proceedings. It is as absurd to do it at the time proposed, as it would be to give a criminal a chance to defend himself after he had been convicted and sentenced.

But as I have already said above, I do not think it necessary to inform the insane person, who is deprived by the very nature of his disease, of using his reasoning powers, of the exact legal proceedings to be taken, his rights of appeal, &c. These proceedings are entirely right and justifiable, as is the legal control we exercise over children. I do, however, regard it as necessary to tell him that competent physicians have recommended his treatment at a hospital, and he will be taken there by his friends. He should never be taken there under a deception, as is now so often, and unblushingly done.

Jury trials of the insane are in the highest degree pernicious, and I can hardly believe they are ever necessary. Judges should have discretionary power to appoint special commissions to investigate doubtful cases of insanity, and perhaps the right of jury trial for the insane must still be left in their hands.

The cases of conspiracy, in consequence of which insane persons are placed in hospitals are so few, that special laws are hardly needed to cover them, especially when our commitment laws are properly framed, and executed by competent persons.

Proposition XV reads as follows:—"A person suffering from a nervous affection which is liable to terminate in insanity, and which in the judgment of a qualified physician, could be more successfully treated in an asylum, should be allowed to commit himself voluntarily on the certificate of such qualified physician, setting forth the facts of the case." I can never understand how the advocates of stringent commitment laws can be so inconsistent as to advocate the voluntary admission of patients into insane hospitals. Do they realize that they expose one class of persons to the very dangers against which they try so hard to guard another class?

Evidently they believe that the wording of a voluntary law is going to obviate all sources of danger. If they say, as Dr. Smith does, "a person suffering from a nervous affection which is liable to terminate in insanity," or if the mental condition of the alleged insane person is "not such as to render it legal to grant a certificate of insanity," as one Massachusetts statute puts it, perhaps they

think an insane person will not get into the hospital under the law. At any rate we are forced to believe that the intention of the voluntary law is to only admit sane persons to the hospital for treatment, who of their own judgment and accord seek this treatment.

How far is the intention of the law borne out in Massachusetts? In a recent paper I ventured to say, speaking of voluntary commitments, "If the person is undoubtedly insane, then the institution has no legal right to admit him, no matter how willing he may be to voluntarily commit himself, but as far as my observation goes, the admission has usually turned on the latter point," (not, it might be added, on the mental condition of the patient,) and this with the sanction of the Board of Lunacy and Charity.*

Unfortunately Dr. Smith's proposition is a reproduction of the Massachusetts law, the language if anything, being more ambiguous. He is misled by the same idea, that it is practicable, therefore safe and right, to admit sane persons to institutions for the insane. The worthy motive which animates him is undoubtedly that the nervous person can be saved from mental disease by lunatic hospital treatment and association. He would not for the world, admit the insane person voluntarily, for then of what possible use would be so many complicated commitment laws? He could not do this and be consistent.

Yet he recommends a law which shall voluntarily commit a "person suffering from a nervous affection which is liable to terminate in insanity." Does he reflect upon the time when the termination may take place? Does he remember it may even take place one day after entering the hospital, or if not then, in a week or a month? The person then will require every protection the law grants to any insane person, yet as far as anything Dr. Smith says, he is only a sane man among lunatics, with no safeguards thrown about him of any kind.

In brief then, two conclusions are forced upon us:—First, that a voluntary law which shall admit only persons who are sane, in the true and correct sense of that word, is now a failure in Massachusetts, and probably would be in any other State. Second, the proposition for a voluntary law, which is to be one of a set of rigid lunacy laws, fails to provide for the numerous cases which will fully develop into positive insanity after entering the hospital, and leaves them an unprotected class of the insane.

I hope that it will not be inferred that I am opposed to a voluntary law. On the contrary, much good has been done in this State

* Massachusetts Lunacy Laws, Boston Med. and Surg. Jour., Aug. 2, 1888.

in the practice of this law, which has been shown to be contrary to what the law intended. I think the insane can be admitted voluntarily to hospitals and should be so admitted. But they should have an established legal status, and each case be entered on the proper judicial records.

The hospitial superintendent should be only a receiving official under the restrictive standard of our present laws. He now incurs a certain responsibility in admitting voluntary cases. The patient's friends should be able to say when they come to the hospital: "We have permission from the proper authorities* to apply to you for the admission of this man, who is legally a fit subject for treatment. Can you take him?" Or the patient can say the same thing himself if able.

I am glad to see that Dr. Smith recommends a physician's certificate in voluntary commitments. It is a step in the right direction.

Proposition XIX reads as follows:—"Whenever the acute insane can be placed in the care of a suitable private family with competent attendants and a qualified physician, this method of care and treatment should first be undertaken."

I am rather surprised that Dr. Smith puts the above into a proposition when he says in his remarks, "Family care and treatment of the acute insane must, therefore, always be limited owing to the difficulty of meeting all of the conditions, and the large expense attending the method, however it may be modified."

That there are occasionally, very exceptional and peculiar cases where family care of the acute insane may be successful, we cannot doubt. But these cases are uncommon, and hospital care, either in small or large institutions, the rule. Prompt treatment is of such vast importance in cases of insanity, that even if there were not other objections to this plan of family care the time occupied in making the suitable arrangements would be almost fatal. In view of these facts, I see no benefit to be gained by this proposition. On the contrary, I should fear that it might do more harm than good, and while family care might be alluded to in a more general way in some other proposition, I would not enhance its importance by giving up a proposition to it.

DETENTION OF THE INSANE.

I come now to the second division of Dr. Smith's report, which will require less extended discussion than the first division.

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* Judge of Probate or Commissioner in Lunacy.

Many of the propositions advanced are admirable, though some of them, I believe, are not adapted to meet the needs of the insane, but are rather an expression of popular opinon on these needs, which is not always correct.

Proposition XXI says:—"The insane in custody should be under the immediate care and treatment of qualified persons of their own sex." I cannot agree with Dr. Smith in as far as he means to say that women physicians are quite as capable of managing insane women as men physicians. Impartial testimony from hospital superintendents has led me to form the opposite opinion. Those women who have already held hospital positions, have in cases which have been brought to my notice, not been able to as satisfactorily perform their duties as men. The quality and amount of their work has not been as valuable.

In some directions they have been of great service, as for instance in making uterine examinations, but in performing the general executive duties of assistant physicians they have probably not done more than two-thirds of the work of men. Part of the lack of ability may perhaps be due to the limited opportunities which women have had to prepare themselves for the medical profession, but with every desire to help advance women's rights, in as far as it is possible to do them full justice, I do not expect to see the time when they will make as good executive officers of insane hospitals as men.

If I were to formulate a proposition similar in character to proposition XXI, I should amend and elucidate it as follows: "The insane in hospitals should generally be cared for by nurses of their own sex. Insane women, requiring special treatment, should, if possible, have such treatment applied by female physicians."

Proposition XXVII relating to supervision, is one of the most important of the whole set of propositions. This reads as follows: "There should be visitation and supervision of the insane in custody by competent authority representing the State."

No State system for the care of the insane, as Dr. Smith says, can be complete that does not provide for independent supervision, and as he further says, the institutions for the insane should be entirely separated from all others, and supervised in their entirety, as an independent system.

One Commissioner in Lunacy for every five thousand insane may possibly be enough, which in the smaller States would give one commissioner only, and no board of commissioners.

Dr. Smith says very properly, that the supervising authority

should be thoroughly qualified both by education and experience, but he carefully avoids saying anything of medical supervision, and leaves us to infer that in his opinion the necessary experience and qualifications can be acquired by anyone.

Supposing now we follow his recommendation in a State having five thousand insane and look about for a commissioner in lunacy. Whom can we find that is fitted by education and experience to examine into the condition, treatment and progress of the insane person, and to investigate the executive management and the hygienic condition of the insane institutions, that has not actually cared for the insane and lived in an institution as a medical officer? If we are limited to one commissioner, he must of necessity be a physician, skilled in the care and management of the insane. No other person has had the requisite education to understand the medical care and treatment of insanity, which is before all things a disease, and cannot be treated as anything else. Persons not medically educated, easily lose sight of this fact, and in consequence have sometimes less sympathy and consideration for the insane, and advocate methods of provision which leave out medical care, or the chief influence which has developed institutions for the insane, into hospitals. Any departure from medical care and supervision usually means less attention to physical and hygienic conditions, and more attention to financial and economical conditions, and such a departure if carried to its logical conclusion, will result in less hospital and more almshouse provision for the insane.

THE DISCHARGE OF THE INSANE.

Division III of Dr. Smith's report I can generally agree to as being reasonable, except, perhaps, propositions V, VI and VII, which, though in the nature of the declaration of fundamental principles might be misinterpreted. Proposition V, for instance, says that "an uncured but harmless insane person should be detained in an asylum for guardianship as long as the asylum care and treatment are more beneficial to him than other conditions available." This might mean that in each case of harmless insanity a time would come when the question of whether further asylum care was necessary would arise, and hints at other available conditions of treatment.

If such would be the understanding of the proposition, it would be unfortunate, for as far as my observation goes, the less the degree of asylum care of the insane, the less comfort and attention they receive. Probably not in one case out of a hundred is an

insane person going to be really benefited by removal from asylum treatment. Especially in these days is this the case, when the classification of patients in our large institutions is becoming more and more varied, so that ultimately every form of treatment, from that of the hospital to the home, will be furnished.

Proposition VII reads as follows: "If the conditions are unfavorable for guardianship of a harmless and unsound person by his relatives and friends, he should be placed in a suitable family." While I am of the opinion that an elastic, comprehensive system of hospital treatment of the insane can be made to cover the general ground of all forms of necessary provision, I am strongly in favor of trying the boarding-out system as part of this form of provision. I am, however, only in favor of boarding out as an auxiliary branch of the hospital plan, and supervised by the same authority, and subject to the same high standard of excellence.

The dangers of boarding-out are many, and inevitable from the nature of things, but only one, the lack of thorough supervision, need be considered here. One of the chief defects of our American system of provision for the insane has been and continues to be their lack of careful and systematic supervision. This system has grown so rapidly that in the process of transition we have never arrived at a point where we could perfect it and organize and supervise it as a whole. There have been various attempts, as, for instance, in the State of New York, but legislatures have not recognized the necessity of skilled and efficient oversight on the part of the State. In the few cases where the law has recognized the necessity, appropriations have been too niggardly to establish a board of commissioners with sufficiently extended power.

Even with a very good system of supervision the difficulties of inspecting a large number of insane persons boarding in families scattered over a wide territory are considerable. At the present time the number of boarded-out insane persons in Massachusetts probably does not exceed one hundred, but these are to be found in a great number of different towns, remote from one another, and if they were to be supervised in a sufficiently thorough and systematic manner, the entire time of one person would be required. It may be said in passing that the person appointed to do this work should be a well educated physician, who had had several years' experience in insane hospital work. If Massachusetts had only one commissioner in lunacy, he would find it impossible to personally supervise the boarded-out insane; but the work is

so important that he should have one subordinate official, who could devote his entire time to it, and he himself should give considerable attention to it.

Too much stress cannot be laid on thorough supervision of the boarded-out insane, for they are so situated that they cannot help themselves, and any abuse or ill treatment can easily be concealed or kept from public notice. The persons who take them to board for trifling sums, not only cannot give them anything but their plain diet and home-room, but must actually get work out of them to "make it pay."

The boarding-out system will not be a success, unless the public can be assured, not by the insane persons themselves, or the persons who take them to board, but by competent medical authority, that the standard of care and treatment received is equal to that found necessary for all classes of the insane in lunatic hospitals and asylums.

The experience of the last hundred years has taught us that the insane must be sympathized with, cheered, treated with tact and patience, kept occupied, amused, clean, well fed, in bed and asleep at night, and supplied with frequent medical care, no matter how chronic their condition may be. To whom can the public trust this responsibility without fear of neglect, but well educated and experienced physicians?

It is not possible that the facilities for the care and treatment of the insane possessed by the hospitals can be found in private dwellings, and it is folly to assume that the same methods can be carried out in both, beyond a certain point. But the hospital methods are the correct ones, and if they cannot be fully followed, the most rigid supervision must be exercised to make sure that they are not entirely forgotten, and are enforced in as far as the conditions warrant.

In the above criticisms of Dr. Smith's propositions, I have endeavored to be fair and impartial, and to recognize the high character of the report in general. It is no easy task to get together the material for such a report and to analyze and thoroughly digest it. Yet this is what Dr. Smith has done, and has done simply and without bias. Such discussion as the report presents will in the end lead to the desired result.

NOTES ON SOME CLINICAL EXPERIENCES WITH INSOMNIA.

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At the present time, when so much is written concerning the action of sleep producing drugs, and professional favor is solicited for this or that polysyllabic hypnotic, a brief reference to some clinical experiences in the production of sleep without reliance upon the usual so-called hypnotics, may not be without interest, and it is hoped may be suggestive of further observation in this direction, or the relation of experience already accumulated by others.

Sleeplessness is a condition springing from so many causes, and, in a collection of cases, from causes so extremely diversified, that the physician who pursues a routine practice in attempting to treat the condition, while he may secure an average of good results, must of necessity have a record of intractable cases, and runs the risk of doing serious mischief.

The physician to an hospital for the insane, has, of all others, this question of the production of sleep, thrust constantly before him; and if he receives acute cases, it becomes almost the paramount therapeutical problem, and is, next to the question of nutrition, of greatest importance; indeed it becomes part of the problem of nutrition, the two cannot be considered apart.

Experience in private practice and extended observation in the wards of general and lunatic hospitals, have taught me that the ordinary hypnotics are frequently unreliable and that in some instances their use is attended by results as bad, if not of more serious consequence than the conditions they were intended to remove. I do not wish by this somewhat sweeping assertion to be understood to condemn the ordinary hypnotics, or to doubt their efficacy in suitable cases; but it seems to me that we run great danger of becoming routinists in the matter of sleeping draughts. We prescribe chloral, or some of the bromides; it may be hyoscine or sulphonal, and are satisfied if sleep is produced, or if disappointed of the

* Inaugural essay (for membership) presented to the American Neurological Society, September 18, 1888, at the First Triennial Congress of American Physicians and Surgeons.

desired effect, try some other of the series, without questioning the propriety of our prescription, or attempting to meet the conditions causing the sleeplessness, and thus removing the effect. That this is true is indicated in a measure by the avidity with which the profession seizes upon the various new hypnotics as they are brought forward, and the immediate reports in the journals, of cases in which they were employed.

That there are cases of insomnia without apparent physical cause cannot be doubted. I say without *apparent* cause; the physiology of sleep and the pathology of the conditions causing insomnia, are as yet too little known to say more than this. These cases must of necessity be treated by meeting the only indication present in the best manner possible. There are cases of insomnia, however, due to renal or heart disease, and a long line of cases in which gout or indigestion play a prominent causative role and an equally large number of cases due to nerve tire or starvation, in which the administration of the ordinary sleep producing drugs, may, and often does, bring about sleep, but for which something more to the point —attacking the cause—is the better and safer course.

My experience has involved the use of chloral, the bromides, hyoscyamus, hyoscyamine, hyoscine, and most of the recently announced hypnotics, not omitting the latest applicant for favor, sulphonal. With one or two exceptions I continue to use these drugs either singly or in combination, in a certain proportion of cases. Like most of my fellow practitioners I constantly meet patients who have run the whole gamut of sleep producing drugs and find their last condition in many instances worse than their first. It is to a few cases of this kind that I invite attention more in the hope of provoking comment and the recital of experience in similar lines, than of adding anything new to our therapeutical resources. The methods employed have to my knowledge been used by others and are not unusual or novel, and nothing therefore beyond the simple recital of clinical experience is intended.

Case I. Some years ago I was invited by his attending physician to see the Hon. ———, a prominent politician, with a view of assuming charge of the case. About nine weeks before I saw him the patient had been overcome by the heat while sitting in an open carriage. He did not entirely lose consciousness, but was confused and nauseated, and afterward had intense headache. When I saw him he had a pale anxious expression, pupils dilated, pulse varying from 96 to 104, soft and compressible, respiration sighing, temperature about normal. He was a man of a powerful frame,

weighing when well over two hundred and fifty pounds, but not presenting the appearance of obesity. Accustomed to an active intellectual life, a polished scholar, of excellent conversational powers, and of established reputation as a writer, I found him unable to dictate an ordinary note of acknowledgment or to converse except upon the most simple topics. He was forgetful and emotional, and for some weeks had been unable to obtain more than three hours of troubled sleep at night. Considerable of the mental hebetude I attributed to the continued use of bromides in large doses administered under the impression that there was meningitis. All medicines were discontinued and absolute quiet enjoined. A liberal diet was prescribed, consisting largely of milk, eggs and meat broths. A small amount of sherry was permitted at noon. In the evening the entire body was sponged with tepid water and then briskly rubbed with Turkish towels. A bowl of hot gruel, beef tea or milk, was then administered after which for ten or fifteen minutes, galvanism was applied to the entire spine, one pole of a sixteen cell zinc-carbon battery, being placed at the nape of the neck, the other over the sacrum, occasionally against the feet. For a few moments one pole was passed gradually up over the occiput and permitted to rest on the vertex.

On the first night of this treatment four hours of comparative quiet sleep were obtained; on the second night nearly five hours, and the duration of sleep gradually increased until at the end of a week the patient went to sleep under the galvanic current, and did not awaken until four in the morning, and then to take a glass of milk and again fall asleep. From this time on convalescence was continuous, and a little over eight weeks after I assumed charge of the case, the patient made the first of several speeches in an exciting political campaign.

The points of this case appear to me to be the discontinuance of the bromides, the strict quiet and rest in a horizontal position, the mildly sedative effect of the galvanic current and the introduction of a moderate amount of warm liquid food into the stomach at the time when it was desired to induce sleep. There is nothing striking about the features of the case, but as it was one of the earliest cases in which I attempted to combat insomnia by any means except drugs, it left an impression upon me which has made it seem worthy of record.

Case II. Sometime subsequent to seeing the case first narrated I was asked to go into the country in Western New York to see a patient suffering from symptoms of melancholia with considerable physical exhaustion and persistent insomnia.

I found the patient in bed in a condition of low muttering delirium which was said to have supervened upon some two months of great mental depression with delusions of unworthiness, impending want, etc. She was pale, the pupils were widely dilated, breath offensive, lips dry, tongue covered with a yellow foul looking coat, pulse feeble and but slightly accelerated, temperature 98° F.

With the unfortunate opinion which prevails among many physicians, that in all or nearly all perturbations of the nervous system bromides are indicated, the attending physician in this case a practitioner of excellent reputation, had been administering every six hours a mixture containing thirty grains of bromide of potassium and eighteen grains of bromide of ammonium to each dose. To whip up the tired horse already starved and poisoned by this treatment, one thirty-second of a grain of strychnia was administered three times daily in a tonic mixture.

The patient had not been obtaining any refreshing sleep. What was called sleep was either a state of stupor lasting for three or four hours and followed by increased mental excitement, or intervals of restless sleep interrupted by delirious talk and terrifying hallucinations, such as observed in cases of *mania a potu.*

The diet administered had been largely what has been justly called "slops." Beef tea, weak broths or gruel, with an occasional glass of milk and a raw egg, had constituted the materials employed in the attempted nutrition. Stimulants had been rigorously interdicted.

A saline cathartic was at once administered as the readiest means of meeting a marked indication. The bromide mixture was discontinued and the resources of the dairy and hen house called upon to a degree that astonished the housekeeper. In addition to the milk and eggs, a liberal diet was ordered and three times daily a whisky punch was directed to be given for a time.

I saw the patient quite early in the day. At night she was moved into a larger room. A sponge dipped in very hot water was passed a few times the whole length of the spine, the whole body briskly rubbed with a pair of coarse bath mittens, a liberal amount of warm liquid food was given and the room darkened. An hour and a half of quiet apparently natural sleep followed, and a more quiet night than for some time was passed.

To be brief, this patient was, under forced feeding—I mean as to quantity—and the application of the means I have indicated, soon in a condition to obtain five to seven hours of sleep at night. Unfortunately as the delirious manifestations cleared up, fixed

delusions became manifest, and the case was soon recognized as one of chronic delusional mania. I should mention that the tonic mixture containing strychnia was continued, and it is possible that it exercised some influence in bringing about such a condition as to make sleep possible.* As in the first case, the prominent indication in this case was to stop the bromides. After this had been done, in many respects the case resembled those cases so frequently met with of sleeplessness from brain tire, in which food and mild stimulation meet the requirements of the case.

Case III. Mrs. —— was referred to me in the spring of 1887 for advice and treatment, for a long series of nervous troubles and persistent insomnia. She was thirty-five years of age, the mother of three children, of whom but one was living. Her domestic life had been unhappy, and for some years she had passed from one boarding house or hotel to another. During the previous fall and winter she had been treated in an eastern city for what was conveniently termed "nervous exhaustion." Early in the winter her condition had been such that she could not rise from bed on account of severe vertigo. She had dimness of vision, tingling sensations, numbness and formication in her limbs, and a constant sense of great physical and mental exhaustion. Under enforced quiet, persistent feeding, tonics and massage she so far improved that she was able to take short rides, and as the spring opened, walks in the open air almost daily.

When she consulted me she seemed to be convalescing favorably, except that there was persistent insomnia, and what she called "creeping and numb feelings in the left thigh and leg which made her apprehensive of paralysis."

Her complexion was sallow or muddy; pupils dilated; tongue broad, pale and flabby; pulse 96 to 110. She took food with some relish and had no distress following its ingestion. Her bowels were regular but the fæces were clay-colored and dry. The urine was somewhat scanty, slightly turbid and loaded with phosphates.

A pill was prescribed after each meal containing one and one-half grains of blue-mass, two grains of quinine and one-fourth grain of dried sulphate of iron with sufficient extract of taraxacum to make a pill mass. Massage was discontinued, but brisk friction night and morning with Turkish toweling advised over the whole body. As far as possible out of door life was to be followed and reading was interdicted as it produced an aggravation of a sense

*See "On the Use of Strychnia as a Hypnotic," by T. Lauder Brauton, M. D., F. R. S. *The Practitioner*, January, 1888. Page 28.

of fullness with dull pain at the base of the head. An abundance of fluid was ordered with each meal and a glass of Vichy to be taken at mid-day.

At the end of about two weeks the pill above mentioned was discontinued and the following substituted:

℞ Ergotin ʒ i
Ext. Nucis Vom. gr. v.
Piperin ʒ i Ft. Pil. No. xxx.

One pill after each meal. The last pill in the day to be taken about an hour before retiring.

At the end of a week under this prescription, the patient to whom nothing had been said respecting any anticipated improvement in sleep, reported that she was sleeping better and that the sense of fullness and weight in the occipital region was much less. The amount of sleep obtained was small and the patient was easily awakened by slight noises. She was advised to have on retiring hot sponging to the spine for five or ten minutes, to be rubbed dry, to be given two or three glasses of hot milk and to be left alone in a darkened room.

On the first night that these directions were followed the patient slept quietly from ten P. M. until after two A. M., was then awake until about four when she again went to sleep and was awakened by the noise made by others in the house at the usual hour for arising. She described the night as the most restful she had passed in several months and needed no urging to continue the course advised. In September this patient had gained in weight, improved in color, and seemed fairly convalescent. Unfortunately during the winter her daughter contracted a fever and the mother became her nurse and constant companion with the result of a return of many of her former nervous troubles. Of these however insomnia was not one, and it is unnecessary therefore to prolong the account of the case, except to say that at this time (August, 1888,) she is again convalescing.

The above cases, representative of many others that might be cited, may be supplemented by an incomplete report of a fourth case still under care, which illustrates in a striking manner what may be done in the way of inducing sleep when all other means have been unsuccessfully resorted to.

Mr. —— was received as a voluntary patient at the Pennsylvania Hospital for the Insane, on account of insomnia, hypochondria and a condition which occasionally manifested itself characterized by hysterical crying and screaming and convulsive movements of the entire body without loss of consciousness.

His insomnia had been of a year's duration; he had what had been diagnosed by an eminent practitioner of medicine as nervous dyspepsia; he was hypochondriacal to an extreme degree. His occupation had been that of a book-keeper, his hours had been irregular and frequently in place of a mid-day lunch he had satisfied himself with one or two bottles of beer or a whisky punch. He had been under the care of various physicians and his condition had been as variously diagnosed. Owing to an inequality of the pupils (due to an accident to one eye during boyhood) the insomnia, the hysterical seizures and some other more or less constant symptoms, by one physician, brain tumor had been diagnosed. For the insomnia, chloral hydrate, the bromides hyoscyamus, hyoscine, urethane, paraldehyde, and methylal had been unsuccessfully tried, and as a last resort his attending physician had nightly injected one-sixth to one-quarter of a grain of morphia hypodermically. This practice had been continued, when he sought admission to the hospital, for four weeks, and had been the most successful of any in inducing sleep. The patient was apprehensive lest he contract the morphine habit and was anxious therefore to discontinue this practice.

Nothwithstanding the fact that hyoscine had been tried by at least one of his physicians, such had been our experience concerning the utter unreliability of this drug, as furnished by some druggists, that the patient was given one-ninetieth of a grain of a preparation which we knew to be reliable from constant use. During the night the patient was wakeful and restless with but an hour's exception. On the second night he received one-sixtieth of a grain of hyoscine at bedtime with one-ninetieth at two A. M., but without apparent effect, as he was very restless and passed into one of his hysterical paroxysms. After attempting almost in vain to induce sleep for five nights, securing but an hour or two at the best, drugs were abandoned. At bedtime on the sixth night he was given a bath at a temperature of 100° F., for about five minutes, wrapped in a blanket and placed in bed, where his entire body was thoroughly rubbed with coarse towels, while under cover. He was then given two glasses of hot beef-tea and left in a darkened room. In half an hour the nurse reported the patient asleep, and he slept quietly until four A. M. The same procedure on the following night secured quiet sleep until morning, and for several nights the same result was obtained in the majority of instances. On one or two nights there was some wakefulness, but not enough to call for interference, and the patient steadily im-

proved. He became more cheerful, his hysterical paroxysms entirely ceased and he seemed in a fair way to convalescence. Unfortunately, just as this point was reached, when the patient was sleeping without any aid, by baths or otherwise, he had a sharp and prolonged attack of diarrhœa, which caused a relapse. He again became sleepless, and for some weeks various drugs have been tried to relieve the insomnia, both singly and in combination. Just at this time, while these pages are being written, resort has again been had to the baths and hot liquid food with the most agreeable effects.

My colleagues at the department for females of this hospital, have tried the methods here enumerated, at my suggestion, with gratifying success.

In an article in *The Practitioner* for March, 1888, on "The Treatment of Sleeplessness," by A. Symons Eccles, M. B., who advocates methods almost identical with those I have narrated, some attempt is made at explanation of the *rationale* of the procedure. Mr. Eccles is in the habit of first douching the head of the patient rapidly with water at 100° F., while he stands in a nude state prepared for the bath. He thinks that the exposure to the air of the unclothed body causes a contraction of the large vascular area of the skin with a corresponding dilatation of the vessels of the internal organs, which is further induced in the brain by the hot douching of the head. In this way all the cerebral vessels are filled. The patient's body being then immersed in the warm bath, the vessels of the trunk and extremities are dilated and especially of the surface, and aided by the slowing of the heart's beat, the supply of blood "to the whole brain" is reduced, decreasing its functional activity throughout equally and thus placing it in the best position for rest.

It seems to me that this theory offers a fair explanation of the phenomena observed. It certainly is evident to me, from experience both among the insane and among the sufferers from varied nervous disorders complicated with insomnia, that methods of this kind have a most decided value. In many cases of insomnia there is disturbance of the cutaneous nerve supply, manifested by unpleasant and harassing sensations of crawling, numbness, etc., and the direct sedative influence of massage, friction or baths by allaying these sensations removes at once a serious obstacle to sleep. The introduction of food is a well-known and oft-practiced method of diverting the blood supply to the abdominal organs.

It may not be out of place to mention in a report of clinical

experience with insomnia, that in a few instances I have found sleeplessness apparently produced in peculiarly susceptible persons by the use of quinia. The insomnia disappeared with the discontinuance of the drug, and it seems possible that a cerebral congestion or engorgement had been caused by it to such a degree as to produce wakefulness.

A word of caution may be necessary as regards the application of warm baths to persons in a very anæmic state, or to those suffering from heart complications. A prolonged warm bath has, as is well known, a very depressing effect, and this may be carried to a dangerous extent.

In the treatment of certain states of acute maniacal excitement and delirious mania, by prolonged bathing, I have seen some alarming symptoms developed.

THE BARBER CASE.

The Legal Responsibility of Epileptics.

BY P. M. WISE, M. D.,
Medical Superintendent, Willard Asylum for the Insane, Willard, N. Y.

The case about to be reported, presents some unique features that deserve a permanent record; not only as an illustration of the conception of epilepsy and mental responsibility of epileptics, by the ordinary lay mind, as presented in the verdict of the jury, but as a very marked instance of constancy in the transmission of one form of nervous disease, for three generations.

Attention may also be properly directed to the weight given by expert evidence, to the absence of motive for the commission of the crime, as a measure of responsibility, and to the legal *criteria* of responsibility as laid down by the court in charging the jury. The antecedent history of the prisoner in connection with the character of the crime and the weight of evidence favorable to irresponsibility, may well create surprise that at least a "reasonable doubt" was not established. It is another instance to be added to the long record of cases, in which the American jury system may fairly be considered incompetent, to determine questions of a scientific nature. The fact that a coherent act may be committed by a person in the unconscious epileptic state, is incomprehensible to the average juryman. Such a statement of fact, whatever may be the authority enunciating it, is measured

"with a sense as cold
As is a dead man's nose."

THE BARBER CASE.

Richard Barber, aged 27 years, a native of Billingboro, England, emigrating to America at the age of 19, a resident of Ulysses, N. Y., was indicted on the 22d of March, for the murder of Ann Mason on the night of the 16th of March, 1888. He was brought to trial in the Tompkins Circuit of the Supreme Court, October 15, 1888, Hon. Walter Lloyd Smith, Justice, presiding. There appeared for the people Clarence L. Smith, District Attorney, and David M. Dean, counsel; and for the defendant, George B. Davis and A. A. Hungerford, all of Ithaca.

It appears that at the indictment, the prisoner pleaded "not guilty" with the specification of insanity; that the Court appointed a Commission consisting of Dr. W. C. Wey, of Elmira, and Willis E. Ford, of Utica, and Hon. Marcus Lyon, to inquire into the sanity of the prisoner. At the assembling of the Commission eleven days after the indictment, an examination led to the finding, that Barber, at the time of the alleged commission of the crime charged against him, and at the examination, was of sound mind. The Commission reported to the Court on April 19, and on the same day, the date of trial was fixed at June 6, 1888. But upon application of the defendant's attorney, the Supreme Court issued a commission to take evidence in England, at the early home of Barber, and where the immediate relatives of Barber resided, and set down the trial at a later date.

These are, in brief, the technical preliminaries of the trial of Richard Barber, for the most atrocious and fiendish murder ever committed in Tompkins county.

The only witness of the crime was Richard Mason, the husband of Ann Mason, the victim. It appears that Barber left the house at which he was living, in the early evening, with the avowed purpose of visiting the Masons, with whom he held the closest friendly relations, and whom he considered his "best friends in America." It was customary for him to make them occasional visits when he was working within easy distance from them, and at such times would entertain Ann Mason by playing upon the accordeon. His affection for Ann Mason was well shown, in his purchase of a music box for her, costing about twenty-five dollars, notwithstanding he was extremely frugal and spent very little money for his own entertainment. This he intended to present to her before leaving for a distant place where he had engaged to work during the summer. He gave as his reason, that as she liked music, and would miss his playing, she could then furnish her own music by "turning a crank." This is related as an indication of the friendly feeling, then existing, between Barber and the Masons, on the eventful evening of the crime.

Richard Mason was certified as insane at the time of Barber's trial, and his testimony, perpetuated by order of the Court, at an examination of him on the 18th of April, was read in evidence. In substance, Mason testified that at 9 P. M., on the 16th of March, as he was coming from his barn to the house, he saw Barber standing near the back door of his house, when he invited him in. They engaged in conversation for about an hour, Mason asking Barber

to remain all night and inviting him to take some apples. In Mason's words, "we were talking and visiting entirely pleasant; Barber and I were on the best of terms; nothing had ever occurred between us; we were just as good friends as kittens." Ann Mason had retired to bed in an adjoining room, previous to Barber's coming into the house. Mason was standing up paring an apple to eat, and as he started to pass Barber to sit down the latter made a sudden assault upon him. "He struck me on the back of the head three or four times and knocked me down and cut my head with something, I did not see what it was. He knocked me senseless on the floor. *It seems to me* I got up and turned around to him and said 'did you strike me,' and he said 'no,' just as calm as could be, and I did not know where the blow came from. Then he struck me three or four times, and I fell in an opposite direction." Mason then called to his wife in the adjoining room, but received no reply. "Barber then went directly to my wife's room and commenced pounding her. She hallooed murder and screamed quite loud. She screamed four or five times. I heard him continue pounding her, and heard her groan. The groanings and screamings ceased after a while, long enough for her to die." Mason's evidence made it appear that Barber came out and assaulted him again, and then returned to his wife's room, repeating the assaults upon her and back again, at which time Mason had crawled underneath a high-legged bureau. He then asked Barber why he didn't go away, without receiving a reply. His evidence at this point is a little confusing, but bears a presumption that considerable time elapsed, perhaps half an hour, before Barber left the house. He threw the hearth rug and cushion over Mason's legs as he was lying under the table "and put kerosene on them from the lamp, and set them on fire." Mason kicked them off, when Barber "picked up the rug and cushion and accordeon and put them on the table in the corner of the room, poured oil on them and set them on fire. Then he had the door knob in his hand and kept looking out, north and south. Then he kept watching the fire and when it got up to a pretty good headway, and in a few minutes I said, 'why don't you go away. I can't get out of here, but will lie here and perish and burn up with my wife.' That is the last I saw of him. My wife lay in the room dead in bed, I expect. There was blood on the floor, piles of it. The lamp fell down and great smoke rose up and flames and I crept out of doors to the wood pile in the orchard."

A small pile of kindling wood was lying in front of Mason and Barber, as they were conversing previous to the assault. The pieces were about sixteen inches long and two inches in thickness. The wounds inflicted upon Mason indicated that they were made by a piece of this wood, as there were no fractures, although there were many scalp wounds.

The fire soon attracted notice and brought assistance. Mason was removed to a neighboring house. The next seen of Barber was upon the highway, less than a mile from the burning house. He was met by a citizen of the village driving past him on his way to the fire, who knew of the tragedy and its author. He recognized Barber and stopped. Barber did not in any way try to elude him and accepted his invitation to ride back to the village with him. On the way the driver invited Barber to go to a dance in the village with him, and he signified his willingness to do so. After reaching the livery barn and opening the doors for the driver, and without waiting for him, he walked away. The driver immediately gave notice to an officer near at hand and Barber was arrested within a few rods of the barn. He made no resistance or attempt at escape, and although surrounded in a few moments by a group of excited men who threatened to lynch him, he was calm and did not reply. Upon searching him a small amount of silver (less than one dollar) and a few trinkets were found. He was immediately taken before Mason who identified him, and when accused of striking Mason and his wife, he said "I do not remember doing it." This statement he has resolutely adhered to throughout the various examinations that have been held of him. Ingenuity has been exhausted in efforts to get some acknowledgment from him, that he had a recollection of the event of that night, but not even a shadow of an admission has been got from him. He pertinaciously adheres to the statement, "I do not recollect doing it," or, "I suppose I must have done it, as everybody tells me I did, but I do not remember it." He stated, the last incident of that evening that he could recollect, was eating apples with Richard Mason.

The evidence of Mason and the finding of the remains of Ann Mason in the burning house, established the *corpus dèlicti.*

The line of defense rested chiefly on an inherited epileptic diathesis; epilepsy in the prisoner until the age of nine years; symptoms of nocturnal fits the preceding winter and the absence of motive for the crime. Without reference to the testimony obtained by the English Commission, or the defendant's witnesses, the hypothetical question prepared by Mr. Davis, defendant's counsel,

and put to the experts, will follow. It contains the substance of the direct evidence, and is not only skillfully formulated, but presents the evidence bearing upon the prisoner's responsibility in a fair and impartial manner. Quite contrary to usage, the prosecution did not present a hypothetical question in their cross-examination.

QUESTION.—"The defendant, Richard Barber, is twenty-seven years of age, and unmarried. He was born at Billingsboro, England, and there resided until nineteen years of age. Since that time he has resided in the vicinity of Trumansburgh, N. Y.

"Defendant's great-grandfather, had hemiplegia, or paralysis, and was to a certain extent maniacal previous to his death. His grandfather was affected by epilepsy and during one of these attacks inflicted great injury upon a friend who was trying to restrain him. His father's brother was an epileptic, and died by falling into a ditch during an epileptic fit. His aunt was an epileptic, became insane, and is now confined in a lunatic asylum at Lincolnshire, England. Another aunt is a confirmed epileptic. His cousin developed epilepsy at the age of twenty, and has had epileptic fits many times since; and when he has them, it requires several men to hold him until these attacks are over. Another cousin's two children have been subject to epilepsy. His grandfather's cousin was subject to epileptic fits, and committed suicide by hanging. The above named people were very violent during the attack of epilepsy. His oldest sister died at the age of two years in an epileptic fit. His sister next younger than the defendant died at the age of ten months, in an epileptic fit. His brother, aged twenty-three, had epileptic fits occasionally, up to the time of his leaving England three years ago. His sisters, aged respectively twenty and eighteen, suffered severely from fits until about eight years of age. His brother, aged thirteen, also had fits until he was about eight years old. His brother, aged twelve, has been subject to fits all his life, and these fits were very violent. His brother, aged nine years, had epileptic fits until he was eight years old. His cousin has been subject to epileptic fits. The defendant, Richard Barber, had fits, which were accompanied by delirium and violence during the attack, and for a short time after, almost weekly and sometimes several in a week, until he was nine years old. That all the above named family are at times highly nervous and excitable. His grandfather and aunt were especially excitable, and passionate and impatient of control or contradiction. That simple indisposition in the above named family—feverish, stom-

achic, catarrhal or otherwise, caused extreme nervousness, violence and delirium. That these convulsive attacks rendered said Barber temporarily maniacal, followed at times by great mental prostration, and he was always very violent during these epileptic attacks and had to be restrained by force to prevent his doing an injury to himself and others; the most violent part of the attack lasting about fifteen minutes and the entire attack about an hour or an hour and a half. While in England the said Barber was treated by Thomas Blasson, a physician, a great many times for epilepsy and convulsive seizures. He had over four hundred of these attacks before he was nine years old. The said Barber while living in England displayed a good-natured, pleasant disposition, was very kindhearted and a good, attentive, affectionate son and brother. He was temperate, steady, a regular attendant at church and an industrious workman. During the eight years Barber resided in this country, he has worked industriously most of the time out of doors; been regular and temperate in his habits and much respected by his acquaintances, and never committed or was accused of any crime, previous to the present one. While said Barber made his home at the house of Thomas Donahue for whom he had worked and with whom he had lived several years, he was severely afflicted with a certain skin disease which caused great irritation and suffering. Said disease, on the application of ointment produced a raw condition of the skin, so that portions of his body at one time looked red, inflamed and the color of "hog's liver." He complained of itching and smarting of the skin, and said that he felt as though there were "bumble bees all over him." Said irritation prevented him from sleeping nights. He had a haggard, pale look and it affected his general health and made him quite nervous. During the winter and a year or two before he complained a good deal of pain in his head, and was somewhat abstracted and moody and did not associate with young people to any extent. He could not sit in a warm room for any length of time and used to sit in a cold room or go to a chamber room by himself. The sheets of the bed during the winter were frequently soiled with blood and water, and the bed was frequently stained, as though wet with urine and semen. During the winter of 1887–8, the defendant had been afflicted with incontinence of urine during the night, although to no great extent."

(Here follows the relations of the defendant to Richard and Ann Mason and a description of the commission of the crime and the manner of his arrest, heretofore described.)

"That he has been in jail since the 17th day of March, and that while in jail he was observed to have an epileptic fit, or *petit mal*, or light epileptic seizure, and has displayed some fury.

"Fully considering the above facts; the medical history of his family, and of the defendant; the character and details of the crime; the acts of the prisoner subsequent thereto, what would be your opinion as an expert as to the condition of the accused at the time of the commission of the crime?"

The answers to this question, given by expert witnesses summoned by defendant's counsel, stand substantially as follows:

Mr. F. B. Sanborn: The facts appear to me to indicate no other conclusion, than that the defendant was at the time of the commission of the act, in what we call an epileptic fury.

Dr. P. M. Wise: Assuming the crime was purposeless,—without a motive—it is my opinion he committed it while in the unconscious, epileptic state.

Dr. H. E. Allison: If the act was motiveless, there would be a strong probability that it was performed by a person in the condition of epilepsy.

Dr. G. Alder Blumer: I should say unhesitatingly, and with a sense of conviction that nothing else could shake, that at the time of the commission of the alleged crime, he was suffering from epileptic insanity.

Dr. Robert T. Morris: I believe that he was then in a condition of mind known as epileptic insanity, or epileptic furor.

Dr. M. D. Blaine: I should consider at the time of this crime, he was in a condition that may precede or follow an epileptic attack, called epileptic furor.

Dr. John Kirkendall: His mind was, at that time, under the influence of *petit mal*, with the result afterward, of epileptic mania, which rendered him unconscious for the time being.

Dr. J. A. Lewis: He was in a condition of an epileptic in an attack of furor. The same opinion in substance was held by Drs. R. L. Smith, C. A. Richards and M. B. Goodyear.

The following are answers elicited from witnesses summoned by the people.

Dr. Willis E. Ford: He might or might not be an epileptic.

Dr. William C. Wey: I think he was a sane man. Your hypothetical question does not change my judgment.

Dr. Floyd S. Crego: If there was no motive, I should think he was suffering from epileptic mania at that time, and was irresponsible.

Several other physicians of the locality, testified substantially that Barber was sane and conscious, when he committed the crime.

Drs. Ford and Wey, who, it will be seen give answers unfavorable to the theory of irresponsibility, were members of the lunacy commission to examine Barber, relative to his insanity, in April. At that time neither the family history of the prisoner, the evidence of *petit mal* in the jail or of nocturnal epilepsy, the preceding winter, were before the commission.

The prosecution, in rebuttal, endeavored to show, circumstantially, a motive on the part of Barber. It appears that Mason had about one hundred dollars in the house, but that this was known to Barber was not established, and there was no evidence showing that he had taken the money, or attempted to take it. His looking out of the door before leaving the house; his occasional answers to Mason's queries; the absence of blood on his clothing, although Mason bled freely; the discovery of foot prints of a number seven shoe in the snow two days after the event, leading in a zigzag direction away from the house, and occasionally turning as if the wearer was looking at the fire,* and the fact that he walked away from the barn in the village, instead of waiting for his companion to complete his engagement, were urged as facts supporting a theory of a knowledge of the act and a desire to escape.

The experts of the first part did not consider any of these facts as inconsistent with an epileptic condition at the time of the commission of the crime, and they were united in not modifying their opinion, expressed in their answer to the hypothetical question of the defense. The prosecution drew from several of their expert witnesses an expression of belief that the fits from which Barber suffered "weekly and sometimes twice a week"—convulsive seizures that attacked him suddenly and left him in "a condition of delirium and violence" for from one to two hours—attacks that were witnessed more than forty times by a member of the Royal College of Surgeons of England and a practitioner for thirty-two years, and by him designated as "severe epileptic fits," and of which he had more than four hundred up to the age of nine years, were "worm fits," or the ordinary eclampsia of childhood, and was not epilepsy. It is hardly necessary to comment upon such an opinion. The reader will have no difficulty in drawing an inference, and perhaps the court had this answer in mind when he gave to the jury the perti-

* It was shown by actual measurement, at the trial, that the shoe the prisoner wore upon that night was a number nine, although the witnesses were positive the track was made by a number seven shoe.

nent query, "What weight is the opinion of the (expert) witness in any event upon the question?"

There was no exception in the expert evidence offered by either side, that if the prisoner was, at the time of committing the crime in a condition of epileptic mania, he was unconscious of the act, and consequently was not responsible.

The judge in his charge to the jury was sufficiently specific in his definition of legal responsibility, but in the following instruction,—and to the writer it appears justly so,—exception was taken by the defendant's counsel.

"You will therefore see that there may be a very broad difference between what medical men define as insanity, and legal responsibility. No matter how insane a man may be, no matter how much under the influence of an epileptic attack, or epileptic furor, no matter by what force impelled, resistible or irresistible, if this defendant at the time he did the act knew the nature and quality of the act, and knew that it was wrong, then, gentlemen of the jury, he is in the eye of the law legally responsible for the act that he has done, and if that act constitutes a crime, he must suffer the punishment which the law prescribes."

Certainly we cannot see the force of this reasoning even through the spectacles of law. It stands as remote from the advanced position of Judge Montgomery, in the Daley case,* as that was from the time-worn precedent, the unscientific precedent established by the acceptance of Lord Erskine's famous plea of one hundred years ago. Mark the difference! Judge Montgomery declares in his instruction to the jury, "If he did know (*i. e.* the nature and quality of the act, and that the act was wrong) but by reason of the duress of such mental disease, he had so far lost the power to choose between the right and wrong, and to avoid doing the act in question, as that his free agency was at the time destroyed, and if so, if the homicide was so connected with such mental disease, in the relation of cause and effect as to have been the product of it solely; if some controlling mental disease was in truth the acting power within him, which he could not resist, then he will not be responsible."

Judge Smith further charged the jury, "that it is not necessary for the people to show to you that there was an adequate motive for this act. It is not necessary for the people to show you what his motive was, but they claim that the reason and the method

* A Judicial Advance—The Daley Case, by W. W. Godding, M. D., AMERICAN JOURNAL OF INSANITY, October, 1888.

and the plan and design, apparent in the act which he did, in itself indicate sanity, and indicate that there was motive for the act itself."

Surely, this ruling of the court eliminates one of the most important tests of insanity and responsibility, in relation to the alleged morbid condition of the prisoner. From the medical expert's standpoint, it was a reasonable and vital prayer of the defendant's counsel, that the judge charge "that motive is an essential element of the crime which cannot be presumed, but must be established by a preponderance of proof as much as any other element. It is in cases of circumstantial evidence that the motive often becomes not only material, but controlling, and in such cases the facts from which it may be inferred must be proved. It cannot be imagined any more than any other circumstance in the case. If the jury believe the prosecution has not established any motive for the crime by competent and legal evidence and beyond reasonable doubt, it should be regarded as important on the question of epilepsy. The judge refused, however, to modify his charge.

The law is supposed to have a certain preconceived standard of criminality. The mind of the alleged criminal must be in a condition to act voluntarily, of free will and with malice. "He must" says Foster "be capable of committing an action flowing from a wicked and corrupt motive; he must be in a condition to act *malo animo malâ conscientiâ.* If a man has no motive at all, or no power of discerning what motives are wicked, he cannot be said to act maliciously, in the legal sense of the word."

Judge Smith defined with great care and definiteness, the several degrees of crime for which the prisoner was indicted. His instructions as to questions of law and rules to be followed, were clear and concise. The jury, notwithstanding, returned a verdict of "guilty of arson in the first degree," a crime for which the prisoner was not indicted. The judge reinstructed the jury, and they revised their verdict to "guilty of murder in the first degree." In polling the jury, one of the members stated in answer, "Yes, I think her death was caused by burning." This was quite contrary to the evidence, but is an indication, as was also the primary verdict, of the dazed condition and confusion of the minds of the jury, caused probably by the intricate questions they had to consider. Is it not reasonable to suppose that the mental responsibility of the prisoner, which was in fact the chief issue of the trial, was relegated to a secondary place?

The prisoner was sentenced to be hanged on the 18th of December, 1888. Thus ended the remarkable trial of Richard Barber.

It was the writer's privilege to examine the prisoner, about two weeks after the commission of the crime. At that time epilepsy was not entertained by the prisoner's counsel, as a particular plea, as no history of it had been obtained. The great atrocity of the crime by a man without previous criminal tendencies, or without apparent motive, suggested insanity. I gave him a careful physical examination. There were no external evidences of epilepsy, no abrasions of the tongue* or cicatrices about the head that he could not explain by wounds or accident. He still had the remains of the "skin disease" mentioned in the evidence, and he still suffered some from itching, but it was rapidly improving, as he informed me. He maintained as he did to the commissioners, that he never recollected having a fit, but that he suffered from headache in the morning and occasionally had "dizzy spells." He gave the stereotyped answer, that he recollected nothing about the tragedy, and admitted that he must have done it, as everybody said he did, but he did not remember it. He said he knew the penalty of the crime; expressed an apparently sincere affection for the victims and appeared somewhat moved, emotionally, while conversing about it. His mental condition was dull, and he was abstracted. It sometimes required a sharp repetition of the question to gain an answer, which did not appear the result of voluntary reticence, but of dullness. At the trial he was uniformly composed and unmoved; would sit in his chair with his head slightly inclined and gaze at the floor, as if he had no interest in the proceedings. The following report of his aspect at the trial are taken from the *Ithaca Daily Journal.*

On the second day of the trial, "Barber, the prisoner, appears as cool and unconcerned as any man in the room. At the close of yesterday's proceedings he was surrounded by a curious and admiring crowd, composed largely of ladies. He bore the curious gaze of the audience, and listened to their audible comments with the same stolid composure that has so far characterized him. He seems somewhat interested in the proceedings and a smile occasionally flits across his stoical features at the amusing bull of some excited witness."

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* The signification of an absence of scars upon the tongue as evidence against epileptic fits, at any time of life, was particularly dwelt upon by the people's counsel. The expert witnesses, however, did not give this much weight, as it was maintained that wounds by epileptic bites in youth, in so vascular an organ as the tongue would be likely to disappear. Dr. Blaine, of the Willard Asylum medical staff, examined the tongues of seventy-two confirmed epileptics of years standing, resident in the Willard Asylum, who suffered from *grand mal*, and wounds or cicatrices were found upon but twenty of them,—less than thirty per cent.

After the verdict—"Barber received the verdict of the jury, convicting him of the heinous crime, with the same stolid composure and utter lack of feeling, which has characterized him throughout the trial."

After the sentence—"Not a quiver of a muscle, nor any change of color was there to indicate to the hundreds of close observers that Richard Barber felt or appreciated the awful position he occupied before the court and before the people of Tompkins county. Calm and impassive, with no perceptible change in his stoical countenance, Barber received his sentence, and quietly followed the sheriff from the court room to the jail. From all evidences of feeling shown during the trial, he might have been the casual witness of a drama instead of the chief actor in the tragedy."

Was Barber an epileptic during the winter of 1887–8? This question was of great import, and its affirmation was stoutly contested. The convulsions from which Barber had suffered in youth, had ceased at nine years of age. During the seventeen years interval, there was no evidence of epilepsy, until the past winter. The prosecution attempted to show by their expert witnesses, that it was improbable, admitting the convulsions in youth to have been epileptic, that a relapse after seventeen years of health, should have its primary manifestation in a homicidal act. While the defense claimed strong presumptive evidence that the prisoner had suffered from nocturnal epilepsy throughout the previous winter, they proved that during the said winter, he was nervous and at times stupid; that he would frequently appear in the morning "haggard and sour-looking" and his hands would tremble; that he would rest his head in his hands, and would say it "hurt;" that sometimes, "in playing checkers he seemed to be stupefied, and didn't know where to move, and stopped and pondered, and sometimes he would throw up his game and let it go;" that at various times he "wet the bed;" that he looked "tired and nervous" and was heard at various times to "talk in his sleep" and that his bed was occasionally in a very disordered condition.

It is well known that epileptics, after an interval of some years' freedom from convulsions, have changed manifestations of the disease. Barber had not lost the predisposition which he inherited, but with increasing strength and vigor, and years of healthy out-door occupation, the fits were suspended. What more reasonable presumption, claimed the defense, than that epilepsy, to which he was still predisposed, should be the expression of a nervous condition resulting from ill-health?

We have in the case of Barber, probably, as marked an instance of the transmission of a purely epileptic neurosis, as there is on record. Eighteen consanguineous relatives suffer from epilepsy; and there is no manifestation of other varieties of nervous disease except the resultant insanity, delirium and morbid irritability. Barber himself has had more than four hundred attacks of *haut mal.*

This man, after a winter of suffering, irritation and insomnia, during which he presents evidence of nocturnal fits, visits his nearest and best friends, in the evening. Without any apparent motive or object, and without any preparation for his deadly work, he seizes the nearest thing at hand—a small piece of wood—and commences a vigorous but unskillful assault upon his friend. His will and consciousness might have been suspended, and yet his special senses might have been acute. The calls of his friend to his wife in an adjoining room attract him to her, and he continues his assaults upon her. The lowest nature of the man has no volitional restraint. His tendency is to destroy, and he brings oil and fire to his aid, but it is at hand and is not prepared for his purposes. Though acting apparently rationally, he is destitute of a normal recognition of his outward relations and feelings. He passes to the door and gazes out. Returns and watches his fiendish work. The increasing fire suggests complete destruction, and the demoniacal nature—the nature of every man whose volition is inhibited—is content; and he passes away apparently in answer to the prayer of his victim.

Is it unreasonable to assume that this act, which is inconsistent with every instinct of conscious humanity, is the symptomatic expression of an epileptic neurosis?

He wanders about aimlessly, and the increasing brightness of the fire may attract his attention. Consciousness returns, and were he at rest, stupor and sleep would follow; but the bracing air of the cool March night, restores him to a low degree of wakefulness. He finds himself upon the highway and is accosted by a passing individual. He is asked about the fire. He does not know—under the assumption, of course he does not. His mental daze leads him to acquiesce to every proposition. Will he ride to the village? Yes. Will he go to the dance? Yes. Will he open the barn doors? Yes. And then, in his confusion, he wanders away, but does not run, or attempt to elude the officers who rush after him and seize him roughly, or answer to the gibes and threats of the crowd, for it is incomprehensible to him, and he cannot yet recog-

nize fully the outward relation of things. He is taken before his living victim and accused of the crime, which he does not deny. It is all a blank to him. He does not comprehend or reply. Is it a dream? Alas! no; he is roughly seized and with a shout of profanity, he is asked why he does not reply, and then he makes the only reply he could, under the assumption; "I cannot remember doing it."

This is one picture, but there is yet another. He may have had an undiscovered motive, and if he did, and the commission of the crime was premeditated, it would be wholly inconsistent with the theory of the defense. Even epileptics have criminal tendencies, and commit criminal acts at moments when they are mentally and legally responsible. So there remains a doubt, but it is a "reasonable, rational" one, and the prisoner should have had the benefit of it.

THE BEARING OF HOSPITAL ADJUSTMENTS UPON THE EFFICIENCY OF REMEDIAL AND MELIORATING TREATMENT IN MENTAL DISEASES.*

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By hospital adjustments I mean all external circumstances and conditions in the situation, surroundings and relations of the patient which may have an influence upon states of mind or feeling—all external stimuli addressing the senses, favorably or otherwise—these as distinct from purely medical treatment. These must embrace all local, domestic, personal and social contacts and relations with the moral influences growing out of the latter.

The subject does not lead us into the whole field of the treatment of insanity or of all classes of the insane; and the ideas advocated are not necessarily applicable to classes not included in the discussion.

The suggestions proposed will be applicable mainly to two classes of patients found in hospitals for the insane, although some of the ideas would not be inappropriate for other classes, if it were practicable to apply them, though not essential to the welfare of the latter.

The two classes are, first, those for whom there is hope of recovery under proper remedial treatment, and second, those who, while past hope of restoration to mental health, are still alive to the influences addressing them,—those whose comfort and happiness or whose discomfort and misery, are materially affected by the society in which they live. This class includes, and always will, large numbers. They deserve much sympathy and consideration. These are persons upon whom mental disease has fallen in such forms that while the power of self-care and guidance has been permanently crippled, so that their lives must be spent away from home and family, they still retain ordinary sensibilities, capacity for pleasure or pain, and are fully alive to the quality and import of their surroundings. They are still able to appreciate, and in a natural way, the privileges and amenities most valued by persons in sound mind. These though incurable as cases of disease, should never be ranked and associated with another class of incurables over whose facul-

* Read before the New England Psychological Society in Boston.

ties disease has, so to speak, made a clean sweep, and left them in deep dementia.

Discussing the matter of the hospital adjustments adapted to the two classes to which this paper will be devoted, I shall be obliged to refer to the subject of hospital construction, as lying at the very foundation of any satisfactory system of distribution or classification of patients, whether for successful remedial treatment, or for maintaining the meliorating influences required by the class of sensitive patients not expected to recover.

The subject will naturally require a consideration of the principles which should guide in the distribution and the personal associations of patients ; and the rank among remedial measures, which should be assigned to what may be called domestic adjustments, or what is the same thing, the instrumentalities by which the moral influences brought to bear upon patients are to be created and controlled. So much have these influences to do with the best success that it would be right to call them the mechanisms of moral treatment.

If my observations have been correct, and if I have correctly read my own experience, this branch of the subject of the treatment of mental diseases has not attracted the comparative attention to which its relative importance among remedial and meliorating measures entitles it.

This statement is emphatically true so far as it relates to plans of building; since these shape and control more than any other single element, the quality and efficiency of the whole line of domestic and social influences and forces which can be employed for curative or meliorating purposes.

Reference to the earlier plans of hospital building for the insane, and their defective features, is not made in any spirit of depreciation of the ideas or work of our early predecessors. So far from it, considering the condition of the insane, as well as popular, and even medical opinion, when these pioneers set about the new enterprise their work should be regarded as a distinguished success. They found the insane in jails, cages, and often in chains, and generally in much suffering. Nor had the belief in supernatural influence wholly disappeared. To have planned and built for these outcasts safe, comfortable, and comparatively pleasant residences, with kind care and nursing, was an immense advance step. To have looked in their plans for all the fruits of the study and experience of nearly a century, would have been simply a preposterous expectation. Their buildings fully met the most urgent demands as then seen,

and marked the first, and perhaps most difficult step in the revolution of ideas and practice to follow. They transferred the insane essentially from the category of outlaws to that of invalids, and in this laid the germ of all subsequent evolution in the right direction. Our debt to the fathers is a great one, and the only infelicity of the situation is that the defects as well as the excellencies of the past are the inheritance of the future. In a progressive work, the best ideas of any one time, if embodied in masonry, may become even embarrassments in future stages of the same work, when earlier ideas in unfolding, call for new measures. So it is that the deficiencies in the old plans of hospital building are now prominent in the older institutions, among the embarrassments of the present.

In the early stages of hospital care of the insane, the many abnormal demonstrations of patients stood out in bold relief and overshadowed many other facts, leaving its distinct marks upon the architecture of the time. This explains the great preponderance of means for close custody and repression in the old plans, as well as lack of provision for expanding and liberalizing measures in treatment.

Later study and experiment has shown that the item of means of repression was overestimated in the early stages, while the demand for diversity and variety of influence was hardly recognized, and the relations of the two elements in treatment might well be reversed.

For unavoidable reasons insane hospital construction has not kept pace with the evolution of ideas as to the care and treatment of the insane. First among the reasons for this stand pecuniary considerations. You cannot expect to be able to demolish and rebuild for each new idea or want discovered, and your new idea cannot always be readily engrafted into the old. We often try that in these days, and while we make some gain we still build not as well as we know.

If anything in modern work is to be criticized, it is that so little departure from the old plans has been introduced into those of institutions more recently constructed, departures embodying the fruits of experience. Changes have been mostly in ornamentals and unessentials.

The tyranny of precedent over men's opinions and courses of action explains, perhaps, better than any other theory this almost servile copying of the old type of insane hospital construction. But the influence of precedent begins to yield to the lessons of observation and experience, and here and there, at home and

abroad, are seen encouraging departures from the old type of construction.

The hospital for mental diseases, which may be looked for in the future, will not be copied from tradition, a stereotyped structure, but will be the outgrowth of an unbiased study of the ideas and wants suggested by many individual observations and experiences.

So much, in old ideas and methods, as is found to be practically defective or detrimental, will be dropped out of new construction, at whatever cost of theory, or committal of personal opinion. So will the progressive spirit cherish respect for the past, and retain in the hospital of the future whatever, in old forms and methods, a cautious observation has found adapted to the demands of a progressive and successful practice.

But mere justice to the present state of knowledge of insanity, and the condition of its successful treatment, demands such innovations as will bring into operation a larger range of curative instrumentalities, whatever incidental obstacles may oppose. By incidental obstacles I mean such questions as that of a too stringent economy, either in plant or maintenance. I know the cry of economy is full of magic, and so the demagogue harps upon it everlastingly, but honest common sense will not strain economy so far as to sacrifice the main end to which it is applied. There is cause for saying that this is sometimes done in our field of labor.

I cannot doubt that the experience of most physicians in our older State hospitals has shown them numerous and constantly occurring instances, in which the only facilities which their buildings afforded for classifying and locating patients were radically wanting in fitness, and that many of the existing conditions, would not only *not* contribute to the best success in treatment, but on the other hand would exert a positively hurtful influence in the case.

Who of them, when the location of the new patient in the house was to be settled, has not to his chagrin found that the whole establishment did not afford a situation satisfactory to his best judgment of the needs in the case? or that the situation to which, after thorough survey of the ground, he was obliged to assign the person, was an unsatisfactory compromise of personal interest to one or another? Who has not even been obliged to provide for a patient who could not come in contact with any others without detriment to the others. These damaging associations are among the evils entailed by our large stereotyped and monotonous wards

in the old hospitals. In these it is unavoidable that incompatible characters or symptoms are brought and kept in contact. Persons of intelligence, cultivated tastes, and delicate sensibilities must associate in day rooms, and at meals with their opposites in tastes, habits and speech. If any one thing more than another can painfully impress the new comer, already in a morbidly sensitive state of mind, it is this. The condition inspires anything but hope and courage. Such a patient makes a personal sacrifice, incidental to treatment, not demanded by the nature of the ailment, but simply by deficient facilities for avoiding the sacrifice. I contend this is not a good time to add external burdens and depressants to those of disease itself.

Another of the sacrifices not called for by the nature of the case, in the majority of patients, is that of the loss of much personal freedom. A small number comparatively will abuse it, and the large ward compels all to pay the penalty of restriction;—it cannot discriminate. The screen which my irresponsible neighbor needs for his own safety, must perpetually look me in the face and silently tell me that I am not to be trusted. Is this curative of my malady? It is an unjust burden to the majority. Our old monotonous architecture adds still another serious sacrifice to those just named, as suffered by the large majority. It is the sacrifice of their peace and rest by means of the noise to which they are inevitably exposed. As compared with the whole number, the independently noisy patients are few. But in buildings planned and located as most institutions have been hitherto, in a compact body, it is inevitable that a very large majority of the occupants should be constantly liable to this serious annoyance, than which there is none greater. It is contagious, and has power to awaken many a response in the depth of night, from those who would, under favoring conditions, continue in uninterrupted and restful sleep. Noise does not cure noise, but multiplies and extends it. Its influence on the timid, depressed and deluded is especially pernicious. The descriptions, by recovered patients, of the effect on them of the voices pealing out in the night from neighboring rooms or contiguous buildings have deeply touched me. When they would otherwise have found refreshing sleep, they have been obliged to listen to sounds which filled their excited imaginations with indescribable fears and terrors. I think no one will for a moment question that this is an influence from which the quiet insane should be protected, if any change of adjustments can do it.

Another evil of no small magnitude, chargeable to the same

cause, namely, large wards with their unavoidable association of many in common is the influence on the minds of those brought for treatment in the early stages of mental disease, when brought in contact with others in advanced periods, and in whose countenances no hope is plainly imprinted.

The fearful thought flashes through the anxious mind, "this will be my fate," and a dark cloud of fear settles down upon a mind already centered upon self and in conflict between hope and despair. We have all seen such cases, and bewailed our lack of facilities to throw around these minds only scenes of unmixed encouragement and hope. Another adverse influence not to be passed over is the damage suffered by the unsuspecting and credulous patient from exposure to contact with those of mischievous inclinations and habits. The latter are never lacking in any institution. They lie in wait for the unwary and credulous, and are swift to poison their minds and harrow their feelings. They are adroit in the use of assumptions as well as in the perversion of facts to play upon the hypersensitive feelings and imaginations of the innocents. With show of sympathy, say, "such an one has been detained here these many years, and doubtless you will be," or more likely "you will end your mortal life here."

The embarrassments just noticed are only typical examples of the pernicious influences inseparable from that distribution and association of patients rendered absolutely unavoidable by the traditional style of hospital building. These evils are radical, and interfere seriously with the best results of remedial treatment. They cannot fail, not only to increase the distress of the patient in many cases, but if their influence could be traced through the disturbed processes of the disordered mind, to inflict permanent mental damage. That these adverse influences do lower the rate of recovery, no one who has watched their working can reasonably question.

Moreover, it cannot be doubted that under such favoring environments as modern experience in mental disorders is amply competent to devise, the period of hospital residence in curable cases might be materially abridged, and during that period the comfort and satisfaction of the patient greatly enhanced. Observation has shown, that in recent cases, in their nature curable, when all these adverse influences named can be avoided, and nothing outside the disease left to contend with; when all external adjustments are in harmony with the tastes of the patient, in sympathy with his normal bent, convalescence appears earlier.

The sympathetic adjustments become in themselves corrective, tending to undermine delusions, suspicions and unreal fears. On the other hand the same persons thrown into personal association with a promiscuous group of many shades of character and diseased manifestations, are quite likely, and indeed almost certain to find something from which to feed and strengthen their own fancies or delusions, or excite their apprehensions. The timid and self-distrusting suffer loss of hope and courage in the presence of the blatant and demonstrative. These latter offend the sensibilities of the former thus embittering their days. When they go forth from these associations (which the situation inclines them to desire to do early), they bear their impressions with them to families and the general public. This has not a little to do in forming and maintaining a popular prejudice in relation to public institutions for the treatment of mental diseases, and a disposition to delay the needed treatment to the injury of the subject. Buildings and all circumstances should, and might be so adjusted as to conspire, not only not to create, but to correct these adverse influences where they exist.

The limits of this paper will not allow me to extend in greater detail the embarrassments which faulty plans of construction, location and adjustments of hospitals impose upon the best treatment of the classes of patients under consideration.

That these drawbacks are too serious to be disregarded, if not inherent in the nature of things, and ineradicable, no one who has struggled with them, in efforts to reduce them to a minimum by every possible device, will for a moment question.

If this position is correct, the important question for the future to settle in regard to hospital adjustments is, can the evils and embarrassments complained of be eliminated from plans, and others not open to objection substituted? In considering this question it is pertinent to enquire what the fault of the old construction and organization has been, when reduced to its simplest expression. It has been a too limited recognition of the vast diversity of demands in the nature of the case for the successful treatment of mental diseases. The demands most manifest to popular observation, such as safe custody and physical repression, have been fully recognized and emphasized, even at the expense of the more subtle mental and moral demands. The relative importance of the former have been largely exaggerated. This is apparent in the means provided for physical repression. A thing (in itself repulsive), really required only by a minority, is

made of general application, resulting in a style of architecture at once monotonous and forbidding, by the absence of reliefs and attraction. Indeed, even the demand for security need never have crowded out variety and attractiveness.

An overstrained and mistaken effort at economy has been, in some measure, responsible for this bald and monotonous architecture, which has recognized scarcely more than physical necessities.

On this point there seems to have existed from the beginning a whim of public opinion and a demand not easy to explain, that the cost of remedial treatment of mental diseases in public hospitals may be brought within an absurdly small limit. Once christen the disease insanity, and the cost of treatment shrinks, in public estimation, to less than that of living in health. This opinion does not apply in other forms of disease, and why this particular form of disease should ever have been chosen for this trying ordeal no intelligent reason has ever been offered. Yet the fact exists, unreasonable as it is in itself, and unjust as is this discrimination against the insane, of all sick people.

In eight New England hospitals for general diseases the average cost per week for board and treatment is $10.66. Public opinion would deem this an extravagance if the disease was mental, and yet no form of disease justly needs as great a variety of remedial agencies in constant operation, or half the personal nursing service. That personal attendance and service does not come like the rain and the dew without money and without price, it would be rational to remember. This unjust opinion has been more or less responsible for over-crowded wards, broad classification, routine practice, and meager nursing service. This remark is not made to apply necessarily to institutions in which remedial or meliorating treatment is not called for, which are not now under discussion.

The classes under consideration have additional wants and claims of the most urgent character, the neglect of which may be at the cost of a life of chronic disease.

An ideal hospital for mental diseases will not be realized till this traditional error of opinion shall have ceased to have dominant influence.

The position here taken in regard to reasonable cost of curative treatment is strengthened by the history of private institutions, in which cost is vastly greater, for it would be unjust to assume that the considerable sums charged in these do not reasonably represent useful service rendered.

But not to continue further these strictures upon old ideas and adjustments, which I think are fully sustained by facts, let us glance in a general way at some changes in plans and methods, suggested by experience with the old. Any attempt to present specific designs, would be inconsistent with the limits of this paper.

What remains to be said will refer to the means for enhancing the efficiency of moral treatment. I have already said that the earlier plans of building and organizing proceeded upon a too limited recognition of the wide range and variety of agencies required for the best treatment. Many items now deemed essential were passed by in the earlier plant. The time for them had not come. During the last half century the field of practical measures capable of enhancing the efficiency of the moral treatment has been greatly widening; so that the routine of hospital life and practice, in mental diseases, to-day, with its unceasing succession of organized activities in operation, bears but the faintest resemblance to the earlier methods. Experience has found more and more points and methods of approach to the disordered mind and feelings; new leverages for influence, which with adequate mechanisms may contribute largely to restoration, or, if not that, to the comforts of hospital life. It is the lack of provision for these facilities in our old plans which we deplore and which it is so difficult to supply without a revolution in plans.

It is obvious then, that the best helps to moral treatment should have a recognition in original construction.

Plans must possess a flexibility measured only by the great diversity in form of disease, and special symptoms, never overlooking the vast variety in the individualities of the many who may require the ministrations of an institution. These last can no more be left out of the plans than medical prescriptions for special symptoms or sanitary and hygienic demands.

Building, then, ought to represent at once the largest knowledge and practical experience of the alienist physician, reduced to forms of convenience and grace by the resources of the architect.

Locations, divisions, subdivisions, and outlooks must contemplate not only the general classes of mental disorder with their ordinary manifestations, but wants growing out of personal traits, and private proclivities, habits and tastes.

As in the well equipped private residence we will find apartments suited to the gambols of children, others for the graver tastes of middle life, and still others for the retiring tastes and habits of old age, and each designedly adapted to its prospective uses. So here

should construction vary with much varying possible cases, and not be limited to a few fixed large divisions or classes. The value of the recognition of this principle can no more be overestimated than can the evil of incompatible and pernicious associations consequent upon the lack of means of preventing them. Having such diversified situations as to render it easy to adapt moral influences to individual needs is what I mean by a flexible hospital architecture. This I regard as the urgent demand of our time, the demand of the most progressive ideas in modern mental practice; the salient feature of which is individuality in treatment in place of routine. Experience with the insane has long been emphatically teaching us that this may well be called the sheet anchor of treatment, the *sine quâ non.*

Nor do I think we have yet fully tested the power of this principle for success. The idea has come, and work on its line has begun, but it remains for our successors to reap happily richer results than can fall to our lot, results realized not only toward restoration, but in lightening the burden of the patient while under his sad trial. This last is by no means an insignificant item. When the hospital shall have been made as efficient and as attractive as it can be, both the patient and the public have made a great gain, in the fact that residence therein brings no shock. It cannot be claimed that the defects of which I have spoken have not had something to do with an embarrassing popular sentiment, showing itself often in reluctance to a resort to hospital treatment, until all things else have failed and precious time has been wasted.

If the flexibility of plan of which I have spoken, could be carried out into reasonable detail, thus affording sufficient diversity of situation and consequent control of influence, it would go far towards removing objections to hospital residence, when needed, and correcting many pernicious and unjust popular prejudices, which have been fostered by the adjustments complained of. Turn to the practical question, can the features complained of, such as general monotony of plan, necessitating monotony of service and influence, be improved upon? While I fully believe it can, I would not for any trivial reason dissent from ideas and opinions which time and high authority have made eminently respectable, and which have so long been embalmed in the "propositions" of our specialty. Still the reasons for innovation seem sufficiently strong to sanction departure from some of the doctrines of the affirmed and reaffirmed "propositions."

Any steps in such departure should be taken with caution and only on the sanction of well considered tentative experience. We

cannot mistake, however, in accepting as a principle and safe guide, that no adjustment should be allowed which necessarily or unavoidably will antagonize the principal aim of our measures in treatment. It is not easy to imagine a situation sanctioning neglect of this principle. But the features in our old plans which I have characterized as defective and embarrassing, do manifestly and in numerous ways neglect and run counter to this principle. While every active physical as well as moral agency, every moral leverage for influence should be such as to contribute its quota to curative results, should be in itself remedial, many of the objectionable conditions necessitated by the old plans, have not only not been that, but often positively hurtful.

The truth of this statement is substantiated by the pernicious effects known to be produced by the exposure of otherwise quiet and sensitive patients to the noise of the other classes. And yet this cannot be avoided without radical departure from the traditional hospital plans,—the connected block.

This plan necessarily admits an active influence antagonistic to the general good, as it banishes sleep, irritates the already hypersensitive feelings, frightens the timid and feeds delusions with ample material for the construction of new theories and insane fancies, added to those belonging to disease itself. The fault is the same with all the other evils charged to our old plans, namely, that corrective agencies are neutralized by opposing elements. A style of building which provides for correctives only, and excludes opposing influences is the needed remedy.

The construction and relative location must be so changed as to offer largely increased facilities for varying and controlling the remedial and alleviating influences which it is desirable to employ. To realize the most in this direction which we have a right to hope for will require large departure from our hitherto rigid plans, changes which will allow us to largely diversify distribution of patients and thus control personal contacts. These changes will open innumerable new avenues of moral approach suited to the endless diversity in mental constitution, which a really scientific treatment cannot afford to lose. The real demand may be met by substituting what may be termed the broken or flexible architecture for the rigid and monotonous.

If large buildings are chosen, floor plans must be such as to furnish many subdivisions and varied groupings. Separating one or more apartments from others, thus making possible a classification ranging so far as numbers are concerned, from a single person upward, not however above the demands of a strictly individual

treatment. The association of considerable numbers should apply only to such as will benefit each other mutually. One of the most frequently beneficial adjustments would be a liberal variety of smaller apartments or suites, with separate approach and exit, as affording means for directing and controlling remedial influence. This feature along with the larger and more public apartment, serviceable for its social advantages, might do much to make treatment easily personal and diversified; diminish routine, secure the largest degree of personal freedom and indulgence; and guarantee to each individual the best remedial influences, as well as protection from such as are both distasteful and detrimental.

Such adjustments, too, when their power and merits are realized will react favorably on public sentiment, in removing a prevailing reluctance to an early resort to hospital treatment in the time most hopeful for success, a reluctance which has doomed many to a life of chronic insanity, who with well directed early treatment would have been restored to health.

Perhaps a strictly ideal hospital may not be realized, at least for a long time to come, even in cases of new construction, and much more in old establishments. But with exhaustive study of accumulated experience, aided by an architectural skill which can embody ideas in felicitous outward forms, most of the objectionable features just noticed may be eliminated. Here I may be pardoned for saying that it seems unfortunate that in some of the institutions most recently planned and built, and at ample cost, this subject has received so little comparative attention. Changes from the stereotyped plan have not been radical, have not looked towards multiplying and diversifying curative moral agencies, and individualizing treatment, but rather towards outward elegance and perfection of running machinery on old plans. To continue this in new constructions I cannot but deem an unpardonable omission.

The possibility of realizing ideal adjustments in old institutions is of course greatly limited. The required economy cannot grapple easily with masonry, and this becomes the discouragement of the progressive hospital physician. Demolition and reconstruction can rarely be even dreamed of. But even here much is possible. In all additional construction it is easy to break away from the old type and give scope to progressive ideas and methods. And so in all changes in existing wards and other parts of old buildings, these need not be mere repairs, but medical changes looking toward diversity in place of monotony, and the multiplication of moral stimuli.

This idea is finding here and there, happy embodiment, both at

home and abroad. Improvement in this direction has begun, and the not distant future will see dotting the grounds of many of our older stiff and monotonous establishments, smaller structures, planned for special classes and designed to multiply restorative agencies for their occupants, and secure for them, while under treatment a normal style of domestic life, and the amenities belonging to it.

Of the embarrassments in the way of satisfactory treatment, due to the causes I have assigned, I have named only the most conspicuous. The experience of every specialist will suggest many more. It was not the purpose of this paper to give a full presentation of the subject, but only to go so far as to draw out the ideas and opinions of the members in the discussion of what I believe to be the most important practical question of the time in this section of our special work. Neither will my limits allow me to attempt to present any detailed plans of relation, location of buildings, or their internal construction,—such ones as would afford the facilities for an ideal treatment of the classes under consideration.

I will only add three general remarks in the way of outline of plans. Naming three features which should be made fundamental and indispensable in every plan whatever may be the details or specific style of realizing them in buildings or internal furnishings.

The first and foremost is that buildings should be provided for the noisy classes separate from others, and so located as to be beyond the hearing of the quiet at all times.

A second feature in building possesses so great capabilities for remedial service as to entitle it to the rank of an essential. This is more or less of detached houses. These may be of various sizes and styles, and all the better for that; but should not be in rigid rows and uniform, so answering to a single taste, but dropped down here and there in the grounds, in pleasing variety and homelikeness, while convenient for administration.

The third feature to be suggested is, that when for economic or other reasons, larger buildings are desired, the old long monotonous ward style should be entirely discarded and such outward forms and internal divisions chosen as will multiply and diversify situations; as will give the greatest possible diversity of personal groupings; and thus afford the physician the largest control over individual relations and contacts. By adopting a broken and irregular style of architecture a competent artist should be able to produce all these desirable conditions, adding at once immensely to utility and grace, and without materially larger cost than that of the traditional homely and monotonous block style.

ON THE DISSOLUTION OF THE FUNCTIONS OF THE NERVOUS SYSTEM IN INSANITY, WITH A SUGGESTION FOR A NEW BASIS OF CLASSIFICATION.

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The three great divisions of mind universally recognised are the Feelings, the Volitions, and the Intellect. Under these three heads all manifestations of healthy mind can be classed. It is admitted that under the same three heads all disorders of mind whatsoever might be classed, and that parallel with the Metaphysical or Physiological division a Pathological classification might be constructed. Hitherto there have been objections of considerable importance to such a classification, but since Medico-psychological science, guided in this instance by Hughlings Jackson, has begun to look upon all nervous disease from the standpoint of devolution or dissolution, I think these objections have wholly, or in a great measure, been undermined.

After I began to write the following remarks, I found that Bucknill and Tuke, in the fourth edition of their solid work on Psychological Medicine, pages 46 to 50, have shortly, but imperfectly, treated of this subject. They admit that they "think there is something to be said in favour of the attempt to classify the various forms of insanity, according to the mental functions affected." The writers, however, in the "present imperfect knowledge," refrain from launching out on a new "system" of classification. The system which identifies itself with the research of scientists and thinking men, though they may be under the slur of being Metaphysicians, has much to be said in its favour. We do not, it is true, know where the emotions are located in the cerebrum, nor has any enthusiast had the audacity to imagine that he has discovered the precise centre for self-control. We cannot, it is true, take a beautifully modelled cast of the cerebrum and mark upon it in brilliant colours three territorial areas, called Emotional, Volitional, Intellectual. But though this cannot be done, no one can for a moment deny the existence of these three great functions. They are not Metaphysical abstractions, they are realities. One might as well question the existence of the process of digestion,

or of the glycogenic function of the liver. The present system of classification is anathematised by every writer on mental disease, and its unsatisfactoriness is such that each new author has a classification of his own.

In treating of mental diseases, classed according to functional mental manifestation, it is necessary to work upon two different lines, so to speak. (1.) To take up that large section of mental aberrations, caused by arrested development at the various periods of childhood, puberty, and adolescence. To show how mental development has been arrested at each of these periods, resulting in idiocy, imbecility, moral perversion, want of self-control and deficient intellectual growth. (2.) To look at the dissolution or devolution of presumably healthy mind, and trace the affection of function in the various forms of mental disease.

The first section is a very large and extensive one. I could not have ignored it, but I cannot now do more than mention it. I shall therefore in this paper confine myself entirely to the second division.

All forms of mental disease are negative, not positive as they at first appear. Their essential existence consists in a deficiency of properties possessed by healthy minds, not in the superaddition of any quality, whether good or bad. The old and well-known expression which describes a person of markedly eccentric habits as having "a want" is absolutely correct, though its full significance does not seem to have been understood or appreciated. The old views of mental diseases, which have left their impress still upon popular thought, distinctly considered them in the light of positive entities. Not only so, but the writers of the former though not remote, ages added possession by devils to their already positive views, thus constituting mental afflictions not a devolution of the nervous mechanism, but a super-evolution of the same.

The doctrine of the possession by devils is now a thing of the past, but it has left behind its positive impress, more or less, even upon the scientific mind itself. To this day a maniac is looked upon as a person possessing some unenviable qualities which are not, fortunately, the property of sane men. On the contrary, the maniac has by the dissolution of the mental functions, or of the higher layers of his cerebral tissue, lost those qualities which were essential to the stability of his mental organisation. Take, for example, a case of acute delirious mania or a case in the delirium of fever. The mental disturbance is the outcome of great exhaustion. There is surely no accession of energy where every function

of the body and mind is affected, where little food is taken, where there is a high temperature, a weak pulse, a dry tongue, and a clammy skin. It is the outcome of the advanced asthenic condition. Even where a powerful emotion has acted as a producing cause of insanity, and there is a condition of comparative though doubtful bodily health, it must be admitted that the cause has operated not in the way of adding new energy, but by *exhausting* the physical centres and liberating from control the lower more automatic centres, which, so to speak, run riot. I do not know if an explanation has ever been given of the reason why an acute maniac is on an insufficient supply of food and sleep capable of such enormous and sustained exertion. I think it is that the dissolution of the highest sentient part of the brain is so complete that exhaustion is no longer felt, while their control being removed, the lower centres work like a piece of clockwork wanting the regulator, or an engine without its governors. But although there is this principal negative element, there is also a positive element in each case. As Hughlings Jackson says,—and I here, once for all, express my indebtedness to his writings for many of the thoughts in this paper,—"Evolution not being entirely reversed, some level of evolution is left." This remaining level of evolution is the positive part then of the man's mind. It is the survival of the fittest remaining part of his mental mechanism by means of which he utters those delusions and does those acts which constitute him insane. Dissolution, then, is a process which does not proceed equally to the work of destruction or to the total reversion of evolution. As a rough illustration, it might in its action upon mental function or cerebral tissue be compared to the action of weak acid upon carboniferous rock. It eats away the looser portions (weaker portions), leaving the stronger, more organised portions remaining prominent. "Dissolution is a taking to pieces in the order from the least organised, the most complex and the most voluntary towards the most organised, most simple, and most automatic."

To have a somewhat clearer notion of the process of dissolution, one must have a clearer understanding of what is termed the physical basis of mind. Mental manifestation is, of course, the function (speaking physiologically) of the grey matter of the cerebral convolutions. Each part of the nervous system is anatomically composed of cells and fibres. Similarly each part is composed physiologically of sensory and motor centres; there is no difference between them but one,—that of authority, so to speak. Each superincumbent sensori-motor centre evolved represents and

controls all those beneath it until in the prosencephalon every subjective sensation of the body is reimpressed, and every motion represented in separate sensori-motor centres, which, however, are for purposes of further evolution and comparison linked on to other similar centres.

The process of devolution, then, first attacks those latest evolved "least organised, most complex" sensori-motor groups, which being thrown out of gear, the lower centres are released from a higher control—are denudated. The effect of the disenergising of a highest centre in which numerous lower centres are represented can be imagined. Dissolution may be functional (temporary), as in many forms of transient mental affections,—post-epileptic mania, for example,—or it may be organic (permanent), as in chronic mania and dementia.

It would be difficult to determine the order in which the mental faculties are affected in insanity; the functions are differently involved. In a typical case of melancholia, the emotions, then the intelligence, then the volition. In mania the volition is apt to be affected before the intelligence; while in delusional mania there is observed an affection of the intelligence first. It is certain that in all forms of insanity there is a dissipation of nervous cerebral energy along all the lines; and it is not unlikely, it is most probable, that this dissolution of general nervous energy is the forerunner of all forms of mental affection. This nervous energy is to the system what atmospheric oxygen is to life on the surface of the earth. When the supply of oxygen runs low, life languishes. A case of insanity is, therefore, most complicated; the disordered mechanism is, as I have tried to show, so fearfully complicated that it cannot be unravelled,—as yet.

A case of ordinary mania might be described in the following form, the letters being the initials of the functions. Thus:— E_1: E_2+V_1; E_3+V_2+I. It will thus be seen that no single case fits in under any one division, but most forms of insanity come under all divisions in a greater or less degree. Most forms, however, have as their primary feature an affection of one or other of the divisions of mind.

I shall begin with—

I—Dissolution of the Emotions or Feelings.

The two great affections that rank under this heading are, of course, (1) Melancholia, (2) Mania.

(1.) *Melancholia.*—"Mere melancholy might be defined as a

sense of ill-being with feeling of mental pain" (*Clouston Clinical Lectures*). This is a correct definition of simple melancholia. The sensory cerebral centres receive impressions of pain in the same way as the lower sensory centres; with this difference, that the disagreeable stimulus produces in the one case pain, in the other depressed emotion. Cerebral pain is dependent for its cause upon the same two conditions as physical pain, viz., (1) the nature of the stimulus, (2) the state of the sensory centres. The external stimulus may vary to almost any extent. It is always, however, what is generally recognised as disagreeable. Its effect is depressing to the vitality, producing (according to Meynert) a spasm of the arterioles and an arrest of blood supply. If too often repeated, or too powerful, its effect, as may be imagined, will be highly injurious. Of course, in healthy mind, the recuperative power overcomes the influence of the stimulus, which is usually temporary. The condition of the centres is, however, the most important factor in the production of mental depression. When these centres have through any cause suffered, through a loss of vitality or of nervous energy, they become hyperæsthetic. We know that, under similar circumstances, a sensory centre concerned merely with the feeling of physical impressions becomes hyperæsthetic, so that comparatively slight *stimuli* become almost unendurable. In those states of the psychical sensory centres, then, the ordinary organic sensations, which under ordinary circumstances are not felt at all, or even, perhaps, produce pleasure, becomes sources of internal misery. Everything becomes a burden, even life itself. *Tedium vitæ* and the feeling of ill-being are the result. The exact condition of the centres under those circumstances is not known. It is probably one of anæmia. It is certainly a dissolution of that peculiar form of nerve energy which is essential to the proper and healthy working of the mechanism, and results in hyperæsthesia of the cells,—the presence of pain, as it always is, being the sure indication of this disorder.

(2.) *Mania—more properly, Mental Exaltation.*—If melancholia is caused by hyperæsthesia of the sensory centres, it would seem as if mania were the result of anæthesia of the same. I would like here to emphasise the fact that many cases of mania are ushered in by previous depression of spirits, or melancholia. We see here, then, the dissolution already referred to, which dissolution may proceed to such an extent as to produce paralysis of the centres, or a condition of anæsthesia. When a man is suffering acute physical pain, he gets a narcotic, which, temporarily at least,

allays it. This allaying is surely the result of an anæstheticising process upon the sensory centres. In exactly the same manner, men have been known to drink down care, and in the midst of much grief to become for the time even happy. This, then, is the anæsthetic action of the narcotic alcohol producing happiness by a paralysis of the sensory centres. It is a temporary process of nervous dissolution. In the same way, most probably, do the pathological processes produce a similiar dissolution in that condition which is known as simple mania or morbid mental exaltation. It would be absurd to suppose that a morbid feeling of exaggerated well-being is simply an increase of the ordinary feeling of organic satisfaction. It is much more likely that the organic feeling of normal well-being is dissipated entirely; that it is replaced, in the first instance, by a feeling of depression, the result of hyperæsthesia, followed by a feeling of morbid exaltation, the result of paralysis, or, in other words, of total dissolution of function.

It will, of course, be asked, How does a paralysis of the sensory centres produce exaltation? It may possibly be due to two separate reasons. (1.) The channels through which the painful sensations are conveyed are blocked (at the centres), while the pleasant sensations are permitted to pass. (2.) No sensations of a painful nature being transmitted to the cerebrum, the vaso-inhibitory control, which, being a concomitant or a primary cause, is thus removed, and a state of hyperæmia supervenes. Both these causes may be supposed to be capable of acting together.

II.—Dissolution of the Intelligence.

The function of the intelligence is the power of associating ideas, and of comparing them together. It may be diagramatically represented as the linking on of one sensori-motor group to another. It is (1) the process of the formation of new ideas by the union of one already impressed tract of nervous tissue with another. (2.) The process of utilising new and hitherto unused groups of sensori-motor cells by uniting them to those already in use. (3.) The process of setting into action organised tracts of thought in the exercise of memory.

Now one can imagine how disastrous to any of these processes would be a lesion of the connecting fibres by which one of those great and complicated sensori-motor groups becomes attached together, and how much more disastrous would be the result of the destruction of some of the cells which form the groups.

The great mental disorder that comes under this heading is

delusional insanity. I shall here make no distinction between delusional melancholia and delusional mania. They are both disturbances of the intellectual function, the one being perhaps more advanced than the other. I have shown that I consider mania a more advanced dissolution than melancholia, which is proved by the much more numerous recoveries from melancholia and what is termed delusional melancholia than from mania and what is termed delusional mania. The paralysis of the highest centres is much more complete in mania. Delusional states are then the chief mental disorders of the intellect. When a man gives expression to a delusion it is an indication of a very serious dissolution of his mental function. While there is a general nervous weakening, there is also a special local dissolution of some of the very highest parts of his organisation. It is unfortunate that these should be the first and most easily attacked. His fixed false belief is then the best remaining part of the wreck of the affected centres. The judgment that ought to convince him of its absurdity is impaired. There is a breaking down of the faculty of the association and comparison of ideas. There is, as I have said, a destruction of some of the individual cells in those highest sensori-motor groups or of their connecting fibres, by means of which association is possible. In estimating the delusions of the insane, I think, however, that sufficient account is not taken of hysterical posing: it is no doubt a most important factor in many cases.

III. Dissolution of Volition.

There is perhaps no other function of the cerebrum that is so liable to dissolution as this. There is certainly no other that is so much under the influence of hereditary tendency to weakness. A general dissipation of nervous energy is attended by a decrease of volitional power. When there is weakening of the will power, there is at the same time a desire for stimulation. I use the word stimulation in its widest sense. It may take the form of dipsomania, or erotomania, or pyromania, or even kleptomania. These are all reversions to a lower type. There is a desire to satisfy a craving for stimulation or increased blood supply, or increased nourishment, over which the weakened will or inhibition has but a nominal control. This desire or craving is satisfied by an act which throws increased blood supply into the cortex, and temporarily repairs the general waste of tissue and the concomitant dissolution of nervous energy.

Reaction of course, follows, and a further desire, with a further

strain upon inhibition, which utimately gives way. There is thus an increasing dissipation of nervous energy, with at the same time a dissolution of the cerebral or moral inhibitory centres, of which we have no further positive knowledge than that they exist.

Under this heading insanities of the moral and impulsive kinds may be classed. As self-control is one of the highest evolved qualities of mind, so it is often one of the most assailable. When we have to deal with a morbid deficiency of self-control, there is present that lack of general nervous energy to which I have already alluded. When this dissolution becomes local and attacks certain groups of centres, their nervous activity is diminished, and there is as a consequence a demand for increased stimulation to repair the waste.

The power of origination is the highest faculty of man. This power is affected in those forms of *mild partial secondary* dementia with which all asylums for the insane are full. This also is an affection of volition, a dissolution of vital energy, and of the special energy of that mechanism of mind by which the human race asserts its pre-eminence. Dementia itself is pre-eminently an affection of volition, though it involves all the faculties of the mind by a dissolution and destruction of their vitality.

I have now endeavoured to show the basis upon which a new classification might be founded.

I have also pointed out what I consider to be the scientific aspect from which mental disease ought to be studied, namely, that the various forms of insanity are only stages of one great destructive process.

STATE *versus* COUNTY CARE.

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Every State should have a definite and settled policy regarding the care of its insane. This policy should be adopted after a thorough examination and a full consideration of all the existing circumstances and conditions, both as relates to the people and the insane who are to be provided for. The aim should be a high one, to give the best possible care, and to deal justly with all. This policy, when adopted, should receive the cordial support of the State by the enactment of the necessary legislation, and by making the needed appropriation to carry it into effect. The time has gone by when any community can fairly plead inability to meet the expense required by any policy which looks to the highest and best care of its dependent insane. No State nor people have ever been impoverished by their beneficence.

It is a universal maxim that the insane are the wards of the State, and the theory holds good in law, though in practice it may be widely departed from.

The obligation of the State to make provision for the care of all of its insane has been recognized by most, if not all, the States of the Union. This recognition is found in the reports of the various Boards and Commissions, if not in the actual fact of provision made. In some of the States sufficient provision has been made for all. This is true in Connecticut, in Michigan, and substantially true of Pennsylvania, and some of the Western States. In the State of New York, we find this principle enunciated at different periods, by individuals, by official bodies, by Commissions, and spasmodic efforts have been made to carry it out in practice. In looking over the history of provision for the insane, we find that, in 1831, and before a single State Asylum had been erected, in a report made to the legislature by a Commission of which the Hon. A. C. Paige was chairman, the recommendation was made that asylums be erected "of sufficient dimensions and number to accommodate all of the insane."

The Utica Asylum was built in 1843, in accordance with this and subsequent recommendations of like nature. Dr. Brigham, the superintendent of the then new asylum, in one of his first reports, that of 1845, in speaking of the duty of the State to

provide for its insane, expresses the hope that "before many years, all of the insane poor of the State will be separated from other subjects of charity in the county houses, and will be provided for in asylums erected especially for them."

In 1855, at a convention of the Superintendents of the Poor held in Utica, to consider and discuss the condition of the insane poor, among other resolutions were the following:

Resolved, That the State should make ample and suitable provision for all of its insane not in a condition to reside in private families.

Resolved, That no insane person should be treated, or in any way taken care of, in any county poor-house, or alms-house, or other receptacle provided for and in which paupers are maintained or supported.

There was no more earnest advocate of State care in contradistinction from county care, for all of the insane, than the late Dr. John P. Gray, superintendent of the State Lunatic Asylum at Utica. In his report for 1865, he expresses himself in the following vigorous language: "I have for years been convinced that the whole system of care of the insane poor in county receptacles was founded in error as to the nature of the disease, proceeded upon false notions of political economy, and was too inhuman to be tolerated in a Christian land; and in these views I have usually found myself supported by all of the Superintendents of the Poor, and county officers who have had experience in this direction."

In this same year, 1865, Dr. Willard, then the secretary of the State Medical Society, made his report to the legislature of an investigation into the condition of the county houses of the State. In these receptacles, he found 1,300 insane as inmates. Public sentiment was so aroused that provision was made for the erection of an additional asylum, which was called by his name. This was made an asylum for the care of the chronic insane, and its special duty was to receive and care for those who were then in the various county houses of the State.

In 1867, the Hudson River Hospital for the Insane was established, and subsequently, the Asylum at Buffalo, the Homeopathic Asylum at Middletown, and the Binghamton Asylum for the Chronic Insane.

Notwithstanding these efforts on the part of the State in the erection of State asylums, they have never kept pace with the increasing amount of lunacy, and there are to-day in the county asylums of the State outside of the large city asylums in New York and Kings Counties, more than 2,500, or twice the number

reported by Dr. Willard in 1865. These figures are given to show how far short we have come of reaching that high standard of care which has been so continuously and persistently advocated by the various official bodies of the State interested in the care of the insane.

In 1867, the State Board of Charities was organized, and began its work of inspecting and supervising the county asylums. Throughout their reports they have advocated that the State should assume the entire care of the insane, and the permission granted by that Board to the county asylums to care for their chronic insane has been unwillingly given, and only to legalize that which was unavoidable. Their inspection of the county asylums, and their demands for a higher standard in such as have been relieved from the operation of the Willard Law, have certainly wrought great improvement, and elevated the county care, until now it is believed that there is no repetition of the neglect and abuse which former investigations revealed. Public opinion has been educated, and knowledge has been disseminated to such a degree as to render this improbable, if not impossible.

Still the question is pertinent whether the standard of care in the county asylums has reached such a degree of perfection that the people can take to themselves the comfortable assurance that they have done their full duty to the unfortunate insane. If this is so, why is there any demand for the erection of additional State asylums? This must be founded in a deep-seated belief that State asylums and State care are superior to that furnished by the county. This belief is too general and wide-spread to be founded in error, and has a foundation in fact.

The State Board of Charities in their various reports recognize this fact, and are outspoken in their views. In 1870, they recommend "the completion of the several State asylums, and the transfer of the insane, both acute and chronic, to State custody." In the report for 1878, they say that "the conclusions reached by the Board in 1868, as to the unfitness of the poor-houses for the insane, either acute or chronic, have been fully confirmed by repeated subsequent examinations of these institutions."

In the thirteenth report, 1880, in speaking of the chronic class, we find the following: "Unless the State promptly extends its accommodation for this class, the work must necessarily be taken up by the counties. That, it is believed, would be a public calamity, as experience has fully shown that the efforts of counties to provide for their chronic insane have in most cases proved

failures. The Board therefore urge upon the legislature the prompt extension of State accommodations for the chronic insane, as here indicated."

In the sixteenth annual report for 1883, the Board places itself squarely on record against the erection of buildings on the part of the counties, for the chronic insane, as follows: "It may be well to state here that the Board has never thought it desirable to encourage the counties to erect buildings for their chronic insane. On the contrary, it has generally discouraged such undertakings, believing that the well-being of the insane, and economy of management could be better met by providing for this class under the protecting care of the State." And further, in speaking of the exemptions granted to the counties, "It may be well to add that the exemptions granted to several counties have been regarded as only temporary, and until such time as the State shall have made adequate accommodations for their insane." "The buildings for the insane in each of the exempted counties, except Queens, are in connection with the county poor-houses, and they are all under the general control and management of the officers directing and controlling these institutions."

We have thus quoted extensively from the reports of the State Board of Charities, as this Board has for many years had the supervision of the insane, and has become familiar with all classes of institutions. It will be seen that they have steadily maintained the theory that the State should care for all its insane. It is especially gratifying to find that this responsible body which should also be the most competent judges of what is right and best for the insane and the public, should from the beginning of their existence as a Board, and as a result of their experience hold so firmly to the cardinal truth.

We may now very properly inquire why State asylums are superior to the county institutions. These reasons may be readily formulated, and are threefold, as follows:

First. The institution is superior to that erected by the county. The buildings are more substantial. They contain more room, have better arrangements for classification and for the comfort and treatment of patients. There is better provision for heating, for lighting, and for ventilation. The location is chosen with reference to the water supply, the sewage, the healthfulness of the site, and the ease of access for the district to be provided for. The necessary buildings for the proper service of the asylum, for the heating apparatus, for the laundry, barns for the farm, shops

for construction and repairs, are all arranged upon some coherent plan, and adapted to meet the various demands of the institution. The State can do all this while it is impossible for the counties, owing to the small numbers to be accommodated, and therefore, to the greatly increased per capita cost.

Second. In the organization, the State asylums present great advantages: A board of managers nominated by the governor and appointed by the senate, composed of persons of high character, without pecuniary interest in the erection or in furnishing supplies, is given control and management. They serve without pay, and give to the State their best efforts in the conduct of the institution. A superintendent, who must be a physician of experience in the treatment of insanity, is assisted by a steward and a matron, and as many assistant physicians as may be required by the number of patients. These are all resident officers, and constitute an organization, the result of many years of experience, both in this country and abroad, which has received the approval of all who have special knowledge of the subject.

Third. In the conduct of State asylums there is manifest the same superiority as in their erection and organization. The best care of the insane can only be attained by providing freely and fully for the wants of this class. These are: An adequate corps of attendants qualified for the special work; a full supply of food of good quality and variety, and properly prepared; clothing adapted to the season and climate; the wards and rooms are to be comfortably heated and lighted; medicines, stimulants, and appliances to meet varying needs of patients are to be provided; special attention is required for the exercise and occupation of the body, and moral treatment, as schools, lectures, music, and amusements for the mind. It is by such means that the insane must be treated in order to effect their recovery, or to sustain them in a condition of comparative comfort. These are the essentials of treatment deemed of vital importance at the present time, and such are provided in all State asylums.

We will not make the comparison with the county asylums, but will quote from the fourteenth annual report for 1881, of the State Board of Charities, who have treated of this subject at considerable length, and have shown in the most conclusive manner the defects of county asylums, even for the care and treatment of the chronic insane.

While it is probably true that a small portion of the chronic insane may be cared for in connection with the county poor-houses, the mass require a

supervision and oversight which cannot be extended to them in association with other paupers. Hence the erection of buildings adapted to the condition and needs of this class becomes a public necessity. When these buildings are erected in connection with the county poor-houses, and are, as is usual in such cases, under the same supervision, the standard of care for the insane varies according to the individual views of the officers in charge, instead of being based upon, and adapted to, the real needs of this class. If the keeper be a person of kind and humane sympathies, he spares no effort to provide a suitable diet, proper attendants, and every needed facility for the comfort and welfare of the insane. The kindly interest shown by him toward this class extends also to the paupers in the poor-house, and as a result, the standard of care for them is raised beyond their actual requirements. The whole establishment in consequence becomes expensive and burdensome, and soon excites criticism and distrust in the community, on the part of those taxed for its support. On the contrary, if the keeper, as is not infrequently the case, be governed by motives of economy only, the standard of diet and care for the insane is lowered to that fixed for the poor-house inmates, and is therefore inadequate to its purposes. The insane, as a consequence, soon become impoverished, violent, filthy and disturbed, and the efforts at economy, in the end, lead to increased and expensive burdens. Moreover, in the frequent change of keepers occurring in counties thus providing for their chronic insane, great abuses imperceptibly creep into the management, which result in irreparable injury to the insane, and become a matter of deep regret and mortification to its citizens. For these reasons the Board in authorizing counties to retain their chronic insane, has invariably advised the erection of separate buildings, and the placing of the insane, whenever practicable, under management apart from the poor-house. In counties where the number of insane under care reaches one hundred, the employment of a resident physician is required by the rules of this Board.

From an extended and careful examination of the subject in all its varied aspects, the Board early reached the conclusion that the proper care of the chronic pauper insane could be better and more economically secured in institutions controlled and managed by the State, than in institutions under the management and control of counties. The grounds upon which this conclusion is based have from time to time been set forth in its reports to the legislature, and may be briefly summed up as follows:

1. In the erection of buildings for the chronic insane, by the State, a much larger number may be provided for in one institution than in the case of a single county, fewer administrative apartments proportionately are required, and a lower per capita expenditure for shelter may therefore be attained.

2. The supervision of a large number of chronic insane under one management, by the State, is less expensive than when such insane are diffused in numerous county institutions.

3. The supplies, clothing, etc., for the chronic insane in State institutions may be purchased in large quantities, and wholesale prices be thus secured, whereas, in county institutions, the needs in this direction are so limited that retail prices must necessarily be paid for these articles.

4. The standard of care for the chronic insane in State institutions is based upon their real needs, and it is fixed and stable; in county institutions it is regulated in accordance with the views of the officer who, for the time

being, may be in charge, and it is therefore liable to frequent changes and interruptions.

5. In the State institutions the chronic insane may be classified so as properly to meet their varied conditions, and thus promote cleanliness and good order, and secure the enforcement of wholesome rules and regulations; in the county institutions little or no classification can be effected, and the intercourse of the noisy and disturbed with the quiet and well-behaved engenders violence, confusion and disorder.

6. The chronic insane in the State institutions are under the oversight and care of medical officers, selected because of their familiarity with the disease, and the highest ratio of improvements and recoveries is likely to be secured; in the county institutions the medical attendant generally visits the insane only at stated intervals, and large curative results cannot therefore be anticipated.

7. In the State institutions the chronic insane are safely sheltered and secured against bodily harm, and society is protected from their intrusions; in the county institutions the shelter is often insecure, and the community is at all times liable to be disturbed by their inroads.

8. In providing for the chronic insane, the State relieves the counties of the most troublesome and expensive class of dependents, and thereby enables the proper county officers to devote their time and attention to dealing more effectually and economically with the other varied classes of public burdens.

It should be added that some of the advantages here referred to, in regard to the care of the chronic insane in State institutions, may be secured in the more populous counties where the number of such insane is sufficient to warrant the erection of separate buildings for them. In the less populous counties, however, with small numbers of chronic insane, the attempt properly to provide for them under local management must, for the reasons here stated, be expensive.

It is well now to consider the arguments which are used by those who are opposed to State care, and favor the county system. These are but two. One is, that by sending patients to State asylums they are separated from their friends who are too poor to meet the expense of visiting them. This argument has little force, as most of the State asylums are located with reference to ease of access from the district which it serves; while county asylums are located upon the county farms, which in many instances are removed from the main lines of travel, and are really more difficult of access even to residents of the same county than the State institutions, which may be more remote in number of miles.

The other argument, which alone is worthy of consideration, is the greater weekly cost in the State asylums. In regard to the asylums for the treatment of the acute class, the character and purposes of the institutions do not admit of any comparison with

the county asylums. The cost in these curative institutions, as they are called, varies from $3.75 to $4.00 per week. The cost in the larger State asylums for the care of the chronic insane is fixed at the low price of $2.25 per week. They accommodate from one to two thousand patients, and are most favorably situated to care for them at the least expenditure. They have large and productive farms, and provide and purchase supplies in such quantities as to get the lowest wholesale rates. They have competent and experienced men in charge, both in the board of managers and in official positions, who devote themselves to the economic administration of affairs, and are interested in reducing the expenditures to the lowest limit that the standard of care adopted will permit. If county asylums care for their patients at a less price, the only explanation is to be found in the lower standard of care. It would seem to be a self-evident proposition, that if the State under such favorable circumstances expends $2.25 per week, and the county only $.78, or $1.01, or $1.18, as claimed in certain cases, there must be a corresponding difference in the character of the care and treatment furnished, or else the figures are fictitious.

There is another side to the question which accounts in part for the increased per capita cost in State institutions. The State by the present policy is made to care for those classes of patients which demand the greatest outlay for treatment and maintenance. The counties send to the State asylums the acute insane, universally acknowledged to be the most expensive to care for, and all of the noisy, filthy and violent patients from their own county asylums. They then draft from the State asylums the quiet, those which require less active care, and the workers, and return them to their own institutions. In this way the State is made to care for the most expensive and troublesome classes of the insane, and the counties receive the benefit.

The claim is sometimes made that the class of patients treated in the county asylums does not need the outlay that State care implies, for the reason that being chronic, they are therefore incurable. This, however, is begging the whole question. The chronic are not always incurable, and the distinction in the treatment and care because the disease has existed for a certain length of time is neither humane nor scientific. Oftentimes, the chronic insane demand more care, both personal and medical, than many of the acute class, and many of them appreciate their unfortunate condition and also their surroundings most keenly.

If the State asylums are guilty of doing too much for the

insane, this, it would seem, would have been discovered by the officials who have supervision of them. We have yet to see such a criticism, or to hear such a complaint from county officers, from the friends of patients, or from the public.

We may conclude then, that with the same character and quality of care, the counties with their small numbers are not able to keep their patients any more cheaply than the State institutions with their larger numbers. If the State were willing to lower its standard of care to the county limit, it could certainly keep its patients as cheaply.

It is an unpleasant fact to contemplate that many of the inmates of the county asylums have never had the benefit of treatment in a State asylum, but have been taken there directly from their homes. The fact is stated and deprecated in the reports of the State Board of Charities, and is well known by those conversant with the subject.

To return to the statement at the beginning of our remarks: That every State should have some settled policy for the care of its insane.

We have shown the sentiment which has for the last fifty years been expressed by those in positions of authority and influence upon this subject. We have also shown how imperfectly this policy of State care has been carried out. Let us consider for a moment the actual condition, and the practice existing at the present time. There are the following varieties of institutions caring for the insane of the State: First, State asylums for the treatment of acute cases; second, State asylums caring for the chronic insane; third, county asylums caring for both acute and chronic by legislative enactment; fourth, county asylums caring for the chronic insane by permission of the State Board of Charities; fifth, county asylums caring for the chronic insane by sufferance, and without any special permission; sixth, private asylums.

While such a variety of institutions does not favor unity in the plan of care or treatment, it certainly gives full opportunity for choice on the part of the public.

To illustrate the changes to which a patient may be subject under the present practice, we present an example. He may be taken from his home to the county asylum, thence to a State institution for the treatment of the acute insane. If he does not recover, he may be removed to a county asylum permitted to care for its chronic insane. If he subsequently becomes filthy, violent, or troublesome, he may be transferred to a State asylum for the

chronic insane, and if after a season, the active symptoms subside, and he becomes quiet and comfortable, he may be returned to the county asylum, and subsequently to his home from which he started. Each of these removals is attended with expense which the people of the county must bear.

It may be asked if the distinctive character of these institutions is so definitely drawn as to necessitate such changes. This is not possible; in fact the asylums for the acute receive some of the chronic class, while the asylums for the chronic insane receive some of the acute cases; and some of the county asylums take charge of both acute and chronic. There is no law which regulates the division into the two classes of insane, nor can there be; hence there is wisdom in not attempting it. The differentiation most generally accepted is simply one of time; but this is only a fast and loose line, as disease does not conform, and can not be made to conform to periods of time. Some cases advance so rapidly that the chronic state is reached early in its progress, while others linger long in the acute stages. It is not always easy for an expert to decide the question of when chronicity is firmly established, and still more difficult to make the decision which removes the patient from the care of the State, and returns him to the chronic receptacle prepared by the county.

The question may very pertinently be asked, who decides as to which one of these various institutions a patient is to be sent. In answer, we can best refer to the practice of the counties. Some of them send all of their insane to State institutions for the acute; and transfer such to the State asylums for the chronic insane, or to the county asylums, as the authorities of the asylum direct. In other counties, the Superintendents of the Poor exercise their judgment as to what patients shall be sent from the county asylums, and to which class of institutions they shall be sent. In other counties, all of the insane, both acute and chronic, are retained in the county asylums. Some counties which have been given permission to care for their chronic insane do not seem to have any but chronic cases, for they send none to the acute asylums.

Such is the irregularity and uncertainty attending the operation of the law regulating the care of the insane, though the import is plain that all should have the benefit of care in a State asylum.

From what has been said, we think it evident that there should be some definite policy adopted and carried out by the State. It is able to do it, and it is a duty which in justice to the insane it

has no right to shirk. Twenty-five hundred insane in the county asylums against thirteen hundred thirty years ago! Where is the progress? It may be said that our county asylums are in better condition now than then. This is undoubtedly true, but there has been equally as great progress in the treatment and improvement in the State asylums, which makes the same difference between them as existed at that time. The county asylums have been improved only as the State care has advanced; and this alone has rendered the former possible.

It is a simple statement, but one that cannot be controverted, that all the insane of the State should have the advantage of the progress and improvements that have been made in the treatment of the disease, and in the comforts of the asylums of the State. The next question is, How can this be done? We reply, by making State accommodations sufficient to take care of all, both acute and chronic. Such has been the answer to this question, of all the official bodies, and of all the individuals interested in the care of the insane, even of county officials up to a recent period. The State asylums, if carried out as projected, would furnish sufficient accommodations for the acute class, but it is the accommodation of the chronic insane which has been unprovided for.

In 1876, in their ninth annual report, the State Board of Charities presented a plan in the following language:

> This result (to provide for the chronic insane) may be attained by the establishment of two or three additional asylums in different parts of the State, on the plan and character of the Willard Asylum, or by engrafting the principles of that institution upon all the State asylums, now having the care of acute cases only. The latter plan is recommended by the board as being much more economical for the State and well designed to meet the wants of this class of insane. It will require the erection of no expensive buildings for offices, and for the separate treatment of violent cases, as the asylums referred to already have these accommodations. It will insure to the chronic insane the best medical skill without additional expense, and also save the large sums now paid for the transfer of this class from the asylums for acute cases to the counties or the asylums for chronic cases.
>
> To carry out this plan will require only the erection of cheap detached buildings which will furnish suitable accommodations for the chronic insane at the lowest possible expense. Such buildings have been erected of brick at the Willard Asylum, at a cost of about $500 for each inmate. These have been in use for a considerable time, and found to be wholly adequate and proper. When the other asylums thus provide for their chronic insane, and apply the rate for maintenance to counties, as charged at the Willard Asylum, that institution might be allowed to receive its proportion of acute cases. This would bring all the asylums under one plan, and result in great convenience and saving to the counties, and be advantageous to the State.

This plan was never carried out, and as time has advanced, the necessity for State care has grown more imperative.

During the last year, the State Charities Aid Association formulated and presented to the legislature a bill which contained almost the identical provisions suggested by the Board of Charities in 1876. In support of the principles of that bill, the New York State Medical Society adopted the following report, made by the committee to whom was referred that portion of the president's opening address relating to the treatment of the insane:

1. That until comparatively recent times the insane were considered and treated as criminals and confined in dungeons or prisons.
2. Their subsequent retention in poor-houses was but a remnant and mitigation of the old system.
3. The treatment of the insane has improved with the progress of civilization.
4. Therefore special hospitals were supplied for them, and their welfare was intrusted to scientific and humane experts.
5. To return to anything like the old system of treating the insane in poor-houses or relegating them to the custody of county officials would be a grave mistake.
6. For the proper classification and treatment of the insane more means are required than for the patients of general or even other special hospitals. Institutions for the insane therefore demand medical experts as superintendents, nurses trained in the general care of the sick and then in the special care of the insane, schools for the physical and intellectual training of the insane, for the practice of out-door and in-door industries, and many other appliances.
7. The Medical Society of the State of New York expresses therefore its objections to any plan or law which in any way looks to the return of the insane to the county poor-houses, as being unscientific and inhumane, and expresses its conviction that those institutions, like the State asylum, which have boards of managers accountable to the State government, and also to the public, are best adapted for the care of the insane poor of the State.

As showing the sentiment of the highest body of experts in this country, we present the resolution passed by the Association of Superintendents of American Institutions for the Insane at their annual meeting held at Fortress Monroe, in May last:

Convinced of the soundness of the principle embodied in the bill proposed by the New York State Charities Aid Association, which provides that all the dependent insane shall be recognized as the wards of the State, and treated in State institutions, thereby removing them from the precarious care received in county almshouses and the insane departments thereof; the Association of Medical Superintendents of American Institutions for the Insane cordially endorses the principle embodied in said bill, and earnestly commends it as wise and humane, and conceived in the true interests of the insane.

We have shown that the policy of State care for all of the insane

has received the support from time to time of the various official bodies which have had to do with this unfortunate class. We have also shown that it is demanded by the medical profession upon whom the responsibility of the care devolves. There is also a strong public sentiment which favors the State care as opposed to county care.

Whatever may be the result of the present agitation, the policy of State care for all of the insane will continue to stand as the desired ultimatum, the objective point, to be reached. It is the expression of the highest order of care for the insane, and will be contended for by those whose ideas of philanthropy and charity are above partisan and economic motives, and who desire the greatest good, not for the greatest number, but for all.

[In our issue for January, 1888, attention was called editorially to the practice in vogue in Michigan of holding joint meetings of trustees and superintendents of all the State asylums, and the common benefits accruing to the several institutions from such practice were pointed out in detail. At a meeting of the superintendents of the New York State hospitals for the insane, held at the State Lunatic Asylum, Utica, in January, 1888, it was unanimously resolved that each superintendent should suggest to his board of managers the desirability of meeting annually in joint conference with other boards of managers and their respective superintendents at one of the State institutions. This suggestion having met with unanimous approval, a joint conference was called pursuant thereto, at Utica, by the chairman of the Utica board, December 7, 1888. On the occasion of this conference the foregoing paper was read by Dr. Andrews. Lack of space prevents our reprinting the lively discussion that followed. Suffice it to reproduce the following resolution which was unanimously adopted:

Whereas, Unusual and universal interest has been awakened of late in regard to the care and custody of the dependent insane in the State of New York, and,

Whereas, Such dependent insane have always been regarded as the wards of the State, and,

Whereas, It would be prejudicial to the true interests of the insane to depart from this humane conception of their rights.

Resolved, (1.) That it is the sense of this joint conference of trustees and superintendents of State Asylums for the Insane that the State should have a definite and settled policy with reference to the dependent insane;

(2.) That such policy should include, as its most important and vital principle, the care of all its dependent insane in institutions established and controlled by the State.—Eds.]

ABSTRACTS AND EXTRACTS.

REFLEX IMMOBILITY OF THE PUPIL.—Möbius [*Centralblatt für Nervenheilkunde*, December 1, 1888], reports a case of tabes dorsalis in which, without impairment of vision, there was inequality of the pupils, and the left failed to react to stimulation of either retina, while the right, which was the more contracted, reacted normally both to direct and indirect stimulation. Both contracted normally with accommodation.

His explanation, which he illustrates by a diagram, is that each retina is connected directly by centripetal fibres, with both oculomotor nuclei, while each nucleus is only centrifugally with the homologous pupil. In the case described, he supposes a lesion in each set of centripetal fibres, in the neighborhood of the left nucleus, while the centrifugal fibres remained intact as shown by the reaction to accommodative effort.

He distinguishes between reflex immobility and reflex insensibility. In the latter case, the centripetal fibres to both oculomotor nuclei being cut off, neither pupil would react to stimulation of the affected eye. Inasmuch as both affections are, by his hypothesis, lesions of centripetal fibres, the terms can hardly be said to be happily chosen for expressing the distinction.

W. L. W.

THERAPEUTICS OF ALCOHOLISM.—Forel [*Münch. Medecin. Wochenschr.*, abstract in *Centralblatt für Nervenheilkunde*, December 6, 1888], gives the results as to relapse in twenty-four cases of inebriety discharged from the Burghölzli Asylum, Zürich, excluding such as showed no disposition to amendment. In twelve cases the aid of hypnotism had been invoked, in addition to the other usual measures. Of the twelve who were hypnotized, four had continued to abstain, four had relapsed, the result was unknown in one case, doubtful in two, and one was discharged not fully recovered and remained insane. Of the remaining twelve, six continued to abstain, one relapsed, and the result in five cases was unknown. He considers hypnotism to have a certain value in such cases—a conclusion that hardly seems obvious from the statistics.

W. L. W.

THE "COLONY SYSTEM" IN GERMANY.—From the abstract in the *Centralblatt für Nervenheilkunde*, December 1, 1888, of a paper read by Dr. Landerer, of Göppingen, before a meeting of the southwest German alienists, on agricultural employment of the insane and with special reference to colonies of insane, it would appear that the system in use in his institution resembles, in its main features, that recently adopted in the Michigan asylums. The colony is a short distance from the central building enabling patients to be transferred without inconvenience; the patients are visited by a physician once a day, at noon, and are employed at the various kinds of labor incident to a large agricultural estate.

W. L. W.

THE NERVOUS TROUBLES OF OLD SOLDIERS.—Dr. Horace P. Porter, of Oneida, Kansas, who was a medical officer in two Connecticut regiments, during the war of the rebellion, lately read a paper on this subject before the Northern Kansas Medical Society. The defects to which he alludes betray themselves for the most part by muscular unsteadiness, so-called rheumatic pains, and premature senility, all of which he traces to the privations and insalubrious surroundings incident to military service. We regret to learn that a "tendency to mendacity" is one of the manifestations, but are consoled to read that it is "one of the rare and extreme forms." Dr. Porter suggests, doubtless with much justice, that the nervous debility engendered by the hardships of war often renders the old soldier an easy prey to acute disease that he might otherwise survive, and he thinks that this consideration ought to be taken into account by the family physician in its bearing upon the title to a pension.—*New York Medical Journal.*

EPILEPSY DUE TO STENOSIS OF THE INTERNAL OS UTERI.—Dr. William A. Carey, of Philadelphia, reports a case of epilepsy occurring in a woman of twenty-four years of age, in whom there was stenosis of the internal os uteri. All the usual methods of treatment for the relief of epilepsy were adopted without avail and finally the os was dilated to one and one-quarter inches. She immediately began to improve in general health and ten months after the operation when the case was reported, there had been no return of the seizures. —*Medical and Surgical Reporter.*

POWER OF THE IMAGINATION.—Dr. Durand, wishing to test the effects of the imagination on health and disease, experimented on a hundred patients to whom he gave a dose of sweetened water. Fifteen minutes after he entered apparently in great excitement, announced that he had made a mistake, having administered a powerful emetic, and directed that preparations should be made accordingly. Eighty out of the hundred patients were thoroughly ill, and exhibited the usual results of an emetic.—*Journal of the American Medical Association.*

MENTAL DISEASES SUBSEQUENT TO GYNÆCOLOGICAL OPERATIONS.—Werth (*Arch. für Gynäk*) in a paper read before the German Gynæcological Society, reported six cases of mental disease observed after three hundred gynæcological operations. Three of the cases occurred after total extirpation of the uterus; the other three followed operations where the ovaries and Fallopian tubes were removed. In five of these cases the patients showed symptoms of mental depression, amounting in one case to a severe attack of acute melancholia. Four of the six patients recovered rapidly, the other two remained mentally unsound. Dr. Werth referred to twenty-four recorded cases of insanity which had followed gynæcological operations.—*Medical Chronicle.*

EPILEPSY AND INSANITY.—Dr. Goodell, of Philadelphia, says he believes the State should interfere to prohibit the marriage of persons suffering epilepsy

or insanity, and thinks the day may come when, by act of Legislature, insane men and women will be prevented by operative procedures from reproducing their species.—*Canadian Practitioner.*

Immigrant Insane.—During October, 1888, five insane persons, each of whom had been in this country less than six months, and who so far as could be ascertained were insane before coming to this country, were taken care of by the Cook county, Illinois authorities. The total contribution of insane paupers from Europe to Cook county alone amounts to fifty a year.—*America.*

Deeper Brain Surgery.—Dr. W. W. Keen, of Philadelphia, reports in the *Medical News* a case of exploratory trephining and puncture of the brain almost to the lateral ventricles for the relief of intracranial pressure due to an abcess in the temporo-sphenoidal lobe. The result was temporary improvement followed by death on the fifth day. As a result of his observations in this case, Dr. Keen proposes tapping of the ventricles as a systematic operation in any similar case of dropsy of the ventricles or of abcess in them. He thinks that experience may show us that possibly in the head, as in the abdomen, simple evacuation of fluid without its continuous drainage, may be feasible. Dissections and trials on the cadaver have shown that the motor zone, the neighborhood of the fissure of Sylvius and the known centres must be avoided, while the so-called "latent zones" must be utilized.

The Influence of the Cortex on the Salivary Secretion.—Professor Bechterew and Dr. Mislavski (abstract by Kowalewsky, in *Russ. Arkiv. Psychiatr.*) The first, though incomplete results, studies on the action of the cortex on the secretion of the submaxillary gland are due to Lepine and Boeliefontaine. The character of the secretion produced resembled that caused by irritation of the chorda tympani, and after that nerve was divided, the flow ceased. They experimented with a weak faradic current applied to the anterior lobes of the hemispheres. The experiments of these later investigators show that very weak faradic excitation of the fourth primary convolution, the part above and in front of the Sylvian fissure, produced an active flow of saliva. With still stronger faradic irritation and the application of the currents to the anterior division of the sigmoid gyrus the outer posterior part of the same, and also the anterior portion of the second and third primary convolutions there was produced a flow of saliva. The secretion of the submaxillary is excited by the irritation of these convolutions, but that of the parotid only by excitation of the nerves. The flow comes more from the side corresponding to the irritation than from the opposite one. The character of the secreted saliva is similar to that caused by faradization of the chorda tympani, severing that nerve interrupts the flow, while severance of the sympathetic has no effect.

H. M. B.

SULFONAL.—The following abstract of the substance of a memoir by Dr. Mathes in the *Centralblatt für Clinische Medicin*, is taken from *Le Progrès Médical*, October 27th:

Speaking of the memoir of Dr. Mathes it says "he has administered sulfonal in cases of tuberculosis and cardiac disease in meningitis, in alcoholic delirium, anæmia, infectious fever, cirrhoses, tabes dorsalis, neuralgia, etc.

In short he has tried the fashionable remedy in all cases which came under his notice without distinction. This way of proceeding need not be condemned, for it has shown the harmlessness of sulfonal in certain doses in all cases experimented upon. It is worth knowing for example that cases of cardiac disorder stand without inconvenience the same quantity of the drug as the cases of phthisis—one can not say as much of chloral. Then follows from such statistics, the general deduction that sulfonal has a complete hypnotic effect in 72 per cent of all cases. An incomplete effect in 9.25 per cent, and is inefficacious in 18 per cent: that in 19 per cent it produces accessory manifestations; finally that in most cases it acts better the second night than the first, which fact if confirmed shows a marked superiority over morphine and the derivatives of opium in general.

In what do these accessory manifestations consist? Simply in buzzing in the ears, slight headache, deafness, general fatigue and exceptionally in vomiting. But on the other hand we do not observe either cardiac or respiratory disorders or modifications of the appetite or digestion. It is, we see almost the perfection of an hypnotic if we take account of the fact that these phenomena are very rare. The following are the author's conclusions:

I. Sulfonal is a useful hypnotic although it may not be always efficacious.

II. It has the advantage over other hypnotic agents of possessing neither odor nor taste and of exercising no influence over the essential vital organs.

III. It causes no bad effects except in a very small number of cases and in these the worst it does is generally insignificant.

IV. The dose is variable and depends upon the susceptibility of the individual. Most generally one gram is sufficient to produce sleep without any accessory manifestations. When these appear it is only necessary to diminish the dose.

V. On account of slowness of action of the medicine it is well to administer it at least an hour before going to bed.

VI. When insomnia is due to an irritating cough or to pains not clearly neuralgic the use of sulfonal is contraindicated. In most of the true neuralgias, on the other hand, it appears to be of benefit.

We may notice in passing that M. Mathes shares the opinion of Salgo, (*Wiener Med. Wochenschrift*, 1888, No. 22,) relative to the slight sedative action of sulfonal in mania and delirium. Our correspondent Dr. Garnier, director of the lunatic asylum La Charité (Nievre) thinks that sulfonal appears to have an assured future in the therapeutics of insanity. This appreciation agreeing with that of Rabbas (of Marburg) evidently does not undervalue the hypnotic effect of this new medicament.

Rosenbach, Rosin, Ostreicher, Crämer, Schwalbe, Kast, Schmey, Fraenkel, confirm from the results of their personal experience the preceding facts. They proclaim the remarkable efficacy of sulfonal as producing artificial sleep absolutely comparable to natural slumber. This sleep after the absorption of a dose of two to three grams, lasts usually five or six hours without the

least modification of the pulse or respiration. They declare the drug superior to chloral, paraldehyde and all others, except for its high price. H. M. B.

Kowalewsky's Treatment of Epilepsy.—The following are the details of Prof. Kowalewsky's (of Kharkhow) treatment of epilepsy, as given hy him in a recently published article (*Russ. Arkiv. Psych. & Neurolog.* XII: 3, 1888.) He takes cases which he considers possibly curable, (those in which the epilepsy dates back less than ten years) and in these he reckons the minimum period for treatment at two years. This he divides into four equal portions or semesters for convenience in detailing his method. During the first half year he gives his patient a drachm of bromide of soda or such other bromide salt as is selected, each twenty-four hours, adding usually three to five grains of iodide of soda and giving the combination in two or three equal doses in the morning, before dinner, and at night in a large quantity of water. In case there follows any decided adynamia from this quantity of the bromides he decreases the dose somewhat, or in some cases intermits it for four or five days. During this semester also he stops the treatment during the catamenia in female cases.

In order, however, to have this plan succeed, it is necessary to allow a good supporting diet, though preferably one of milk and vegetable food. If there exists any scrofulous taint, cod liver oil or iodide of iron are also administered. In case there should be any symptoms of brominism such as headache, neuralgia, &c., in the beginning of this treatment, it is not necessary to stop the treatment, as soon as it is relaxed a little these symptoms disappear. Much advantage is had in these cases from warm baths and rubbings.

Usually this treatment causes cessation of the attack so that the patient is free from them during the last three months of the half year. Toward the close of the semester the medication stopped for a period from two to six weeks before beginning it again.

In the course of the second half year the quantity of bromide and iodide is reduced one-half and given in the same way, and at its end there is again an interval of two to six weeks. In the third semester only the bromide is given and in doses of five to ten grains, morning and night, keeping up the same regimen and diet. In the fourth half year he begins with only five grains per diem and later only gives the medicine at intervals of one, two, three, four or six days. After this the bromides are discontinued and the patient is given small doses of nitro-glycerine or at intervals in some cases, Tr. Simulo (*capfaris coriaciae*) which is said to have a marked influence over epileptic attacks. Prof. Kowalewsky claims that he has by following out this plan of medication already had quite a number of cures, in which the attacks have not reappeared for over ten years, and that he has lost faith in the incurability of epilepsy.

Of course in cases where there is any specific or tubercular cause or complication the treatment must be adapted to meet the special conditions.

As regards other than medicinal treatment the author recommends electricity as an adjuvant in certain cases, but cautions against its employment in any case where there is a tendency to cerebral hyperæmia. He also found benefits in weak irritable anæmic cases from daily warm baths, of temperature of 25–28 R. (88–95 F.) for fifteen or twenty-five minutes, watching the condition and nutrition of the patient, and when these are improved using baths gradually

lowered in temperature and not so prolonged. In some cases combined baths and electrical treatment are of advantage.

The author's ideas as regards diet are liberal, but he says that for all cases of epilepsy taken together, a vegetable and milk diet is best. Alcohol he forbids even in medicine, at least in the beginning of the treatment—he says he has seen the epileptic attacks revived by even a few drops of alcohol. Tea he allows in moderation, but he advises that coffee, chocolate, &c., be dispensed with at least during the treatment.

There are other points of interest in the article, but the above are the most noteworthy, especially the success that seems to have attended the author's method of using the bromides. The quantity given is certainly not large; not even in comparison with his own treatment in other cases for he recommends as much as three or four drachms *per diem* in cases of epileptic furor. There would seem to be some special advantage in the method or the regimen presented to bring about such specially favorable results. H. M. B.

Dr. William A. Hammond on the Reasoning Maniac.—It is no uncommon event for the reasoning maniac, influenced by his supreme egotism and desire for notoriety, to attempt the part of the reformer. Generally, he selects a practice or custom in which there is really no abuse, or one through which he imagines he has suffered some injury. His energy and the logical manner with which he presents his views, based, as they often are, upon cases and statistics, impose on many worthy people who eagerly adopt him as a genuine overthrower of a vicious or degrading measure. But sensible persons soon perceive that there is no sincerity in his conduct; that he cares nothing whatever for the cause he is advocating; that his cases or statistics are forged or intentionally misconstrued for the distinct purpose of deceiving; in short, that the philanthropy or morality which he affects is assumed for the occasion. Even when his hypocrisy and falsehood are exposed, he continues his attempts at imposition, and though the strong arm of the law be laid upon him, he prates with ingratitude of those he has been endeavoring to assist, and of the disinterestedness of his own motives.—*North American Review*, December, 1888.

BOOK NOTICES AND REVIEWS.

Ætiology, Pathology and Treatment of Puerperal Insanity. By A. CAMPBELL CLARK, M. D., Edinburgh, Medical Superintendent, Glasgow District Asylum, Bothwell. "Journal of Mental Science," July and October, 1887, and January, 1888.

Dr. Clark's article is based, he states, on a minute study of forty cases, in a number of which the histories, prepared on a uniform plan, were contributed by friends engaged in private practice.

The causes of puerperal insanity he classifies as peripheral and central; "the former comprising all peripheral irritants capable of inducing morbific centripetal currents; the latter embracing all unstable conditions of the nervous system." Under the former head he includes toxæmia, either from disordered excretion, infective processes or alcohol; visceral irritations and irritations of the organs of general and special sensibility. He found either obstinate constipation or diarrhœa in 80 per cent of his cases; retention or very scanty urine in over 60 per cent; transient albuminuria in 30 per cent, which he considers to be probably too low, as in many cases the early histories were defective in this respect; arrest of milk in 70 per cent; lochia scanty or suppressed in 75 per cent; profuse in 6 per cent; septicæmia in 20 per cent; inflammations affecting the uterus or its neighborhood in 25 per cent. One case suffered from typhoid fever, and one from scarlet fever—the latter, however, developed subsequently to the insanity. In two cases insanity seemed to have been precipitated by alcoholic excesses. One case began during the second stage of labor, and continued for many weeks. The ill effects of exposure to cold, of retention of clots in the uterus, and of unpleasant sights and sounds are briefly alluded to.

Without questioning the injurious influence of suppressed excretions in such cases, it seems probable that in many instances the constipation, suppression of urine, milk, lochia, &c., may have been due to a common cause with the insanity.

Under the second head, after discussing the influence of unpleasant emotions, he considers the influence of the neuroses and of heredity. Seven of his cases were previously hysterical, and six had suffered from previous attacks of insanity. Excluding two cases in which satisfactory information could not be obtained, a history of intemperance or insanity in one or both parents was found in twelve cases; of insane uncles and aunts in four; of insane sisters in six, and in one the family were all nervous and excitable. Four cases of uterine disease in mothers of patients can hardly be considered a very large proportion, and their importance as a predisposing cause may be doubted.

Pathologically, he believes the condition to be one of cerebral congestion, basing his opinion partly on the symptoms, partly upon two autopsies, one of which he reports at length. The fact that this case was, at the time of death, complicated with typhoid fever detracts from its value. A thorough examination of the urine was made in seventeen cases. Apart from the presence of albumen, already mentioned, the most striking variations from the standard of health were an almost complete absence of the chlorides and great diminution of phosphoric acid.

The most important points in treatment are the nutrition of the patient, and correction of the various complications. Alcohol the author considers of great value in the so-called "typhoid cases." Constipation and suppression of urine are to be met by appropriate treatment, and attention paid to inflammatory and septic foci. As an hypnotic he prefers a mixture of chloral and the bromides. Quiet and isolation, with exercise in the open air when practicable, are considered of the utmost importance in reducing excitement.

W. L. W.

Cases of Masturbation [*Masturbatic Insanity.*] By E. C. SPITZKA, M. D., of New York. Reprinted from the "Journal of Mental Science," April, 1887, to July, 1888.

Readers of Dr. Spitzka's work on insanity will remember that he called in question the existence of insanity of masturbation as a distinct form, while recognizing it as an exciting cause of various types of mental disease. In the present monograph he recedes, to some extent, from this position, and describes a psychosis which he considers to be found exclusively among masturbators, illustrating his views by a tabular analysis of twenty-eight cases from his own practice, and detailed histories of thirteen patients.

According to the author, the form of insanity under consideration occurs exclusively in persons between the ages of thirteen and twenty years. In the great majority of cases there is a bad heredity. Males preponderate in the proportion of at least five to one. It is characterized by a tendency towards an agitated dementia, with remarkable oscillations, in the earlier stages, not only from day to day, but even at different times in the same day. The patients are cowardly, apprehensive, and disinclined to manly sports, but, in many cases, subject to violent and dangerous impulses. There is often an affectation of superior morality, especially in regard to sexual matters. Males are at first timid toward the other sex, and later lose all normal sexual desire; females, on the contrary, are apt to be aggressively erotic. The disease may progress to an irritable dementia, with filthy, destructive and quarrelsome propensities, or, if dementia is less complete, deterioration may be manifested principally in a selfish, deceitful, malicious and cruel disposition. Morbid religious feelings he does not consider characteristic.

Under the head of differential diagnosis, the author finds that mania, melancholia, imperative conceptions, morbid fears and *folie du doute*, paranoia, katatonia and simple stupor may occur as consequences of masturbation, not differing in their course or prognosis from the same disorders when due to other causes. Hebephrenia [insanity of pubescence] is specially difficult to differentiate, as it occurs at the same age, and commonly in masturbators. The principal distinction, the greater uniformity of its course in masturbators. Under the age of thirteen, insanity due to this cause presents more the character of imbecility; after the twentieth year, the usual form is hypochondriacal paranoia.

The prognosis is bad, except when the habits of the patient can be reformed, which is, as a rule, only in the earlier stages. Of the cases, by which the author's views are illustrated, eighteen of those tabulated, and six in which full histories are given, fall outside of the limits of age which he sets, and are accordingly to be considered examples of other forms of insanity due to masturbation. The remaining cases agree pretty well, in their main features, with the author's definitions, and all are related in his usual graphic style.

No one familiar with the literature of the subject can have failed to notice the plentiful lack of agreement among those who have attempted to describe the insanity of masturbation. Has Dr. Spitzka succeeded better than his predecessors in bringing order out of confusion? In view of his statement that in most cases, at least, of hebephrenia all three of the etiological factors are present which he finds active in the psychosis under consideration, it does not seem clear why the name should be given to one rather than the other.

No one, probably, will question the injurious effects of immoderate masturbation, especially in early life. Few will doubt that, in very many cases, it gives a peculiar stamp to insanity, easily recognized by the experienced observer, but its manifestations are so various and complications so numerous that attempts at definition are apt to seem rather arbitrary. It is no easy matter, in many cases, for the unprejudiced observer to decide to what extent the vicious habit itself is the consequence of a defective organization. Many will probably agree with Clark* that "while there is little difficulty in diagnosing the masturbator, it is no easy matter to say what the symptoms of insanity of masturbation are." W. L. W.

Some Problems of Mental Action. By RICHARD GUNDRY, M. D. Reprint from Transactions of the Medical and Chirurgical Faculty of the State of Maryland, 1888,

Moral and Criminal Responsibility. By P. BRYCE, M. D. Reprint from the "Alienist and Neurologist," July, 1888.

While these two papers have no specific connection, we, perhaps, cannot do better than to speak of them jointly, for they are connected by a general similarity of purpose; were written by American alienists occupying similar positions; and they emphasize opposite phases of the same truths, being thus complementary contributions. In view of the not over-philosophical tendencies of some of our alienist brothers, it is consoling to be able to review, under a single heading, two articles that give evidence of an appreciation, on the part of their authors, of the current of the times, and of a working knowledge of that system of philosophy, which is the high water mark of modern thought,—we mean, of course, the philosophy of evolution. True, it is supererogatory to say of any scientist of to-day that he is an evolutionist; but it is, unfortunately, also true that not all of our alienists are scientists, and that many—or at any rate a few—still cling to obsolescent systems of metaphysics.

Another noteworthy thing about these papers is the object toward which they are directed. Alienists are almost the only members of society who are by profession working psychologists, and they owe it as a simple duty to humanity to shed the light of their experience and practical study upon the problems of mental action that are constantly exercising the minds of their fellows in the community. Too often, press of other duties causes them to neglect or overlook this unwritten task. But the two papers before us—one of them read before the Medical and Chirurgical Faculty of Maryland, the other before the National Conference of Charities and Corrections—are both honest efforts in this direction. The specific applications of the two are different, as will be noted presently; but both are taken up largely with general

*This Journal, Vol. XLV, p. 295.

applications of the laws of evolution to the human organism and the mind that dwells within it, and accompanies its functionings. Neither paper advances, nor, presumably, designs to advance, any new thought on this subject; but the familiar biological truths inculcated cannot be too often repeated while yet there remains a trace of the old psychology in the popular mind.

When we have said that the authors write from the standpoint of modern psychology, it is almost superfluous to add that they discuss the developed mind in its somatic relations, and consider the latter as influenced by the two great factors about which the evolutionist is never tired of prating,—the forces, namely, of heredity and environment.

In this connection, Dr. Gundry's paper touches one note that we must consider at least equivocal. He speaks of the tendency to transmit characteristics from male parent to male offspring, and from female to female, and cites illustrations in point; but it is certainly debateable whether the stronger tendency be not to transmit to the opposite sex rather than to the same. As regards the *ensemble* of the faculties, it seems fairly established that crossed transmission preponderates. Witness the familiar observation that the mothers, rather than the fathers, of great men have had superior intellectual endowments.

Another point to which we would call attention in connection with Dr. Gundry's general discussion is the reference to "personality," as a third force governing the organism. Doubtless this is correct enough, as intended, but the author hardly sufficiently brings out the fact that this "personality" is merely the resultant of the two forces comprised under the terms heredity and environment, and not by any means an equivalent concomitant force.

In Dr. Bryce's paper, also, we find one or two conclusions that can scarcely pass unchallenged. When, for example, he tells us that "deficient or undeveloped nerve centres do not constitute disease of the brain, or insanity, any more than a departure from some arbitrary standard of physical strength constitutes disease of the muscles," we cannot but regard the reasoning as defective. The comparison, it will be observed, is between structure on the one hand and function on the other. To make the illustration logical, the muscle in question must be composed of "deficient or undeveloped" cells; and it will hardly be maintained that such a muscle is a healthy structure. But "departure from the normal standard of health" is disease, as commonly understood, whether in muscle or in brain. Quite in the same line is the author's repeated reference to "moral imbeciles" who are "not insane."

Now, of course, insanity is, in some degree, an arbitrary matter of definition; and a person is justified in predicating for himself his definitions, it being only incumbent upon him to follow them rigidly. But, as commonly conceived, insanity in its widest application is mental abnormality, and certainly the "moral imbecile" has not a normal mind,—normality being measureable only by comparative standards.

These and other trifling discrepancies, however, do not influence the practical bearings of the papers under discussion. Here, as already intimated, the two papers are seemingly opposed, but in reality complementary. Their apparent divergence results rather from a difference of attitude than from any fundamental discrepancy. Dr. Gundry seeks to convey to non-alienist brothers in the profession some hints as to the proper guidance of the forming mind of such children as have the unfortunate heritage of a bad organization; while Dr.

Bryce's intention is to gather from the principles of applied psychology some lessons regarding the truly scientific treatment of criminals. The seeming diversity thus implied is only surface deep, however, for the real object in either case is simply to produce normal minds. But since the one considers the mind at a stage when it is still "wax to receive," while the other deals more especially with the mind that has come to be adamantine in its retention and unyielding fixity, it is not strange that the two should seem diametrically opposed as regards the relative value accorded by one and the other to heredity and environment. But each paper recognizes both factors, and doubtless makes the correct estimate of their relative value as applied to the particular class of minds under consideration; and the lesson we should learn is that if the "tyranny of a bad organization" is to be overcome at all, it must, in most cases, be thwarted and checked in its course before its power has been supplemented by the added tyranny of a bad environment,—in other words, that we may expect to do much in the way of preventing criminals, but very little toward reforming them.

To avert, in practice, the evil tendencies of forming minds, Dr. Gundry recommends specifically: change of environment for the hereditarily tainted: physical exercise for the essentially ill-balanced; and in general, the cultivation of "self-reliance, self-culture, and self-sacrifice." He argues that reformation must be always from within outward. "The inebriate, the vicious can all be reclaimed," he says, "provided they seize for themselves the germinating idea of duty."

This is certainly a hopeful view; but in practice an unfortunate difficulty arises at the outset; for the same organic conditions that foster the tendency to evil, produce, of a necessity, a greater or less incapacity for resisting it, or for focalizing upon the good. Too often such a mind cannot be made to seize that "idea of duty," which is its only fulcrum for the leverage of moral tendencies; for the organism in which it abides can by no possibility functionate in that direction. Entirely comparable is the case of a faint-hearted soldier, who dies from the effects of a mere scratch, which would scarcely have incommoded a more rugged comrade. We say of him that his organism need not have given way had not his courage failed; but we forget that his courage would not have failed had it not been for inherent deficiencies of that organism. And a bad man can no more gain good desires by direct willing, than a coward can gain courage by a like effort.

This latter view—connecting the essentially reflex and inhibitory nature of volition, and its entire dependence upon the organism for its specific bias—is emphasized by Dr. Bryce. Making a logical application of these ideas, he regards all criminals whomsoever as pitiable victims of defective physical organization, who should never be thought of as being punished,—any more than to speak of the punishment of the insane,—but who should be always held accountable to an unvarying standard of right and wrong, in the interests of the community. In practice, he would advocate reformatories instead of places of punishment; indeterminate sentences; and—what is practically only another way of stating the same idea—the life-long confinement of such habitual criminals as are incapable of reform. To turn this latter class loose upon society to again and again repeat their crimes, as is now done, is, the author argues, "worse then folly." To all of which the student of mind may safely give assent; but he may, without fear of being thought

unduly conservative, follow such concession with a grave question as to the present practicability of so radical a reformation in judicial methods. Needless to say, the author himself recognizes the difficulties that must attend such a system; but he regards them as not insuperable. Certainly it is to be hoped that he is right. H. S. W.

Treatise on the Diseases of Women. By ALEXANDER J. C. SKENE, M. D. D. Appleton & Co., New York.

This new and attractive work by Dr. Skene represents the experiences of a long and active professional life devoted to the study and the treatment of diseases peculiar to women. The book is beautifully illustrated, and the various steps of the different operations are so minutely described that it seems eminently fitted to meet the wants of the general practitioner as well as those of the specialist in gynæcology.

For several years the author had charge of the gynæcological department of the Kings County Insane Asylum at Flatbush, and the results of his observations in that field are summed up in Chapter LI, which is devoted to the study of the relation existing between the reproductive organs of women and diseases of the brain. This, we believe, is the first attempt ever made to treat this subject systematically in any text-book.

The author begins with the statement that "all will agree that insanity is often caused by diseases of the procreative organs, and on the other hand, that mental derangement frequently disturbs the functions of other organs, and modifies diseased action in them." This last clause, according to Dr. Skene's observations, is particularly true of functional diseases of the uterus characterized by excess of nerve irritability and hyperæmia, without any well-defined change in the structure of the tissues. In his experience congestion of the uterus and leucorrhœa almost always disappear upon the advent of insanity—due to the law of antagonism of diseases—to which clinical fact he attributes, with great plausibility, the meagre attention commonly given by alienists to uterine disease as a complicating factor in mental affections.

Dr. Skene departs somewhat from the views of Dr. Storer by giving to reflex action a secondary place in the ætiology of insanity developing during the existence of uterine or ovarian disease. He takes the reasonable ground that when uterine disease precedes the mental trouble by a considerable period we must consider that the nutrition of the brain has been impaired by the prolonged suffering, and that it is not the result of reflex action from the disease of the sexual organs. In other words the irritation produced by the uterine disease is simply the predisposing indirect cause of the insanity, while the direct cause is some lesion of nutrition of the brain itself.

To the question "What are the ascertained effects upon the insane of curative treatment of the co-existing diseases of the sexual organs?" Dr. Skene makes very temperate answer. He discredits much of the current literature in which magical cures of insanity are reported as resulting from the replacement of a dislocated uterus, or the restoration of a lacerated cervix. From a careful consideration of the subject he is led to believe that only when the mental disorder is recent and sub-acute in character, and when it is wholly due to sexual troubles, can we hope to cure it by curing the primary disease. Chronic mania is not benefited by local treatment but remains unchanged after the uterine trouble is relieved.

The difficulties met with in examining the sexual organs of insane women the author has found can be overcome by the use of nitrous oxide gas. He has never known unpleasant effects to follow the use of this agent: on the contrary several of his patients appeared to be mentally improved by it.

Practical alienists have frequently experienced difficulties in carrying out the ordinary plans of treatment in the various uterine affections. All these obstacles Dr. Skene's ingenuity has apparently surmounted. For instance, in endometritis instead of the usual frequent hot water douches or the medicated tampon he applies once a week, with satisfactory results, equal parts of tincture of iodine and carbolic acid. In vaginitis, after cleansing the parts with a sponge, he applies a mild solution of nitrate of silver and introduces a tampon of marine lint which keeps the inflamed surfaces apart and absorbs the secretions. In operations for laceration of the cervix he uses silk sutures instead of silver, and the tampon in place of the hot water douche. By the use of the latter cleanliness as well as support for the uterus is secured so that no harm is done even though the patient refuse to remain in bed during the process of healing. In menorrhagioa due to endometritis polyposa or fungosa the use of the blunt curette is advised. Where pessaries are used in the insane the physician is warned of the necessity of frequent examination, as such patients often suffer and make no complaint.

Indeed nothing seems to have been forgotten and nowhere can the asylum physician find a safer guide in his gynæcological practice than Dr. Skene has afforded him in this interesting chapter. C. W. P.

On Hæmorrhages and False Membranes Within the Cerebral Subdural Space, Occurring in the Insane (Including the so-called Pachymeningitis.) By Joseph Wiglesworth, M. D., London. Reprint from the Journal of Mental Science, January, 1888.

This paper is essentially an analysis of forty-two cases of subdued hæmorrhage observed by the author among four hundred consecutive autopsies. A tabulated synopsis of the case in detail is appended. The chief argument of the paper is directed toward the substantiation of the view that "the morbid conditions described under the term *Pachymeningitis interna hæmorrhagica* are not the result of inflammation at all, but are solely due to the effusion of blood beneath the dura-mater; the hæmatomata thus found becoming organized and eventually converted into fibrinous membrane." This conclusion is perhaps a little too sweeping, but in the main it seems to us warrantable. We presume that the experience of most working pathologists is confirmatory; our own certainly is so.

As regards the minor conclusions of the paper, it must be said that the number of cases cited is too small to be, by itself, of great statistical value. The striking preponderance of cases of general paresis, however, can hardly be accidental. Of the four hundred autopsies, only 29.75 per cent were cases of general paresis; but of the fourty-two cases in which subdural hæmatomata were present, twenty-two were paretics. The author explains this observation, naturally enough, by assuming a more perfect fulfilment, in paresis, of the conditions that lead to hæmorrhage beneath the dura; and these conditions he believes to be "a loss of support sustained by the meningeal vessels, on account of the convolutional atrophy which is so marked a concomitant of insanity; assisted as this condition so frequently is by transitory or more

permanent congestions." Account is taken, also, of a possible "weakness of the walls of the vessels from degeneration;" but first importance is everywhere given to the loss of support from atrophy. To our mind, these terms are here exactly reversed as regards real relative importance. Indeed, it may reasonably be questioned whether lack of support—in the sense indicated—plays an important part at all. There is, from the physical conditions existing, a necessary equilibrium of forces within the cranial cavity at all times, and it is not apparent that the layer of serum which must take the place of the atrophied convolutions would afford less efficient support than the plastic substance of the convolutions themselves. To assume a convolutional atrophy rapid enough to momentarily change the pressure in the encephalon is of course, altogether in opposition to pathological knowledge; but we fail to see how any less rapid change could materially operate in this direction, for the effusion of serum is always free and rapid. The real salient causes of the hæmorrhage, it seems to us, must be sought in the degenerated vessel-walls, and in the sudden variations in pressure due to fluctuations of the blood supply. In paresis there are unequivocal inaugural changes in the structure of the vessel-wall; and it is equally established that the disease occurs generally in those persons who, from temperament, are naturally subject to rapid and turbulent vascular changes in the brain, occillations which are greatly exaggerated in frequency and extent as the disease becomes established. Undoubtedly a marked atrophy of the convolutions is an equally constant accompaniment of paresis, but this is equally true of all forms of chronic insanity with dementia; and if mere atrophy were the most important factor in the ætiology of hæmatomata, it is certainly not apparent why all these should not be equally subject to such hæmorrhages. Even if degeneration of the vessel-wall were of first importance, the same remark holds, though perhaps in less degree, since the degenerative changes are more uniform and conspicuous in paresis than in any other form of insanity. But the extremely sudden vascular changes—having their mental equivalent in vacillating emotional conditions—are pre-eminently conspicuous in paresis; and to these chiefly—always combined, of course, with the other cause mentioned—must be ascribed, it seems to us, the great relative frequency of subdural hæmorrhages here. In substantiation of this view, it may be noted that the three cases of acute melancholia in which hæmatomata were found all exhibited marked emotional disturbances; and incidentally we may mention, with all deference to Dr. Wiglesworth's opinion, that we are *not* willing to concede the occurrence, in ordinary cases of acute melancholia, of any considerable degree of wasting of the convolutions.

But we have perhaps rendered unduly conspicuous this mere matter of opinion as to the causation of the hæmatomata. In the main, we can most heartily agree with the conclusions of the author; and we would especially call the attention of American alienists to this paper as illustrating the value of these practical pathological studies opportunities for pursuing which are furnished, in some degree, by every asylum for the insane and as regards this particular class of subjects by such institutions only.

H. S. W.

Peripheral Neuritis in Raymond's Disease (Symmetrical Gangrene.) By JOSEPH WIGLESWORTH, M. D., Rainhill Asylum. Reprinted from the Transactions of the Pathological Society of London, 1887.

Raymond's disease is so little known that any citation of a case of that affection would be of interest; but an additional value attaches to the present paper because it refers chiefly to a case in which a pathological condition hitherto unrecorded in this connection was conspicuous. The condition referred to is that of pretty general hyperplasia of the fibrous framework of the peripheral nerves—hypertrophy of the epi-peri and endo-neurium—with marked atrophy of the nerve tubules. The author considers the evidence insufficient to decide as to whether the initial condition was an interstitial inflammation or a degenerative atrophy.

But in either case, he holds that the localized symmetrical gangrene, which is the most conspicuous symptom of Raymond's disease, will be sufficiently explained by the pathological conditions noted, provided these shall be found in other cases.

In view of the indefiniteness of our physiological knowledge of the exact function of certain spinal centres, it would perhaps be unwise to regard any ætiological hypothesis based on a single case; but we can't refrain from calling especial attention to the fact that the only conspicuous changes noted in the spinal cord consisted in a "decided rounding" of the cells of the posterior columns of Clarke.

The microscopical appearance of the higher centres is not noted, an omission that is to be regretted. H. S. W.

Report of the Royal Commission on Lunatic Asylums of the Province of Quebec: To the Lieutenant Governor: 1888.

In September, 1887, three competent gentlemen were constituted a commission to inquire into the lunacy system of the Province, and especially the difficulties caused by the friction between the vested interests of the proprietors of the asylums and the statutes passed by the Legislature, such as that of 1885, which is openly set at naught by some of the institutions.

The description of the state of things here takes us back a good many years in the history of this country or of England. But without going into the endless details that show the shocking defects of any system that puts private or corporate interests in direct conflict with the interests of the State and of the insane, it is enough to touch the root of the matter by quoting the summary given by the commission of the action taken by the Medico-Chirurgical Society of Montreal, in 1866:

1. That the farming out of the care of lunatics, either to private individuals or to private corporations, is practically everywhere abandoned, because it is prejudicial to the best interests of the insane and gives the minimum of cures.

2. That all establishments intended for the treatment of the insane should be owned, managed by and under the direct control and supervision of the government without the intermediary of interested persons.

These principles have everywhere else long since become obvious and elementary; but of course, under vested interests and unexpired contracts, the commission could but recommend such a course as might finally end in

recognizing these principles. To meet the present overcrowding, which greatly aggravates the natural evils of the present system, they advise the establishment of "Houses of Refuge" for the chronic and harmless insane.

The chapter of "General Conclusions" of this report is exceedingly comprehensive and well drawn up. It embraces all the points so far reached by our American association. The commission visited in person many of our best asylums, and they have embodied in their report very full notes of their observations. We trust that in all things our brethren of Quebec will soon become our worthiest rivals. It is the best wish we can tender them in return for the very kind and handsome terms in which the eminent gentlemen whose names are signed to this report, have spoken of American hospitals for the insane and their medical officers.

Fifteenth Annual Report of the State Charities Aid Association, to the State Board of Charities of the State of New York. December, 1887.

The expenses of the State Charities Association, as we learn from a slip on the fly leaf, are about $5,500 a year, all obtained or solicited from voluntary subscriptions and donations. The visiting of the county poor-houses, houses of refuge, work houses and municipal lodging-houses, &c., collects much useful information for the State Board. The society has taken a sound position on the question of state *vs.* county care of the insane; and it is sanguine of seeing the bill districting the State and turning all our institutions into mixed asylums yet become a law. This bill, as presented in the report of the late Lunacy Commissioner, has been fully analyzed in this journal, and it is hoped that in its main features at least, it may prevail.

Fifteenth Annual Report of the State Commissioner in Lunacy for the year 1887.

This last report of Commissioner Smith is very interesting and rich with the results of his well earned and well used experience. It gives a clear, well digested resumé of the operations of all the institutions for the insane in the State, both public and private, with a full account of the new structures projected at Ogdensburg and Matteawan, and the additional group at Poughkeepsie, for chronic cases.

Dr. Smith fairly represents the views of the different superintendents in charge of the various asylums, and very little that is inconsistent or contradictory can be found among them even upon such subjects as restraint, enforced rest and feeding, or the like; but the vexed question of the proper disposal of cases of habitual drunkenness has hardly yet reached solution.

This report is a fair text-book of the management of the insane in our State, though some things that look like amiable concessions to mere gallantry may have to be taken *cum grano salis.* In debates on the woman question it is especially true that

> **The man convinced against his will**
> **Is of the same opinion still.**

Willard Asylum Chapel Service. Asylum Press: Willard, N. Y.

This is a handsome little volume compiled by Dr. P. M. Wise, containing an order for public worship, drawn chiefly from the evening service of the Book of Common Prayer, together with the ten selections of Psalms from the

Psalter. It also contains a large selection of hymns, 212 in number, most of them accompanied with suitable tunes, chiefly of the standard popular character and well known among all denominations. The only criticism we should be disposed to make is that the musical notation is given in rather too fine type, and might present difficulties in reading; but it is probably a very small fraction even of ordinary congregations that depend upon the notation at all in singing, the large majority soon learning the tunes by ear.

It is a very commendable step toward securing an intelligent and sober worship in hospitals for the insane, and doubtless many of them will avail themselves of the opportunity to secure these manuals at the low cost of thirty cents. On orders of not less than a hundred the title page and cover mark will be made for the asylum ordering them.

The advantage of some form of worship in these institutions is that the patients are led more readily to count themselves in as participators in the exercises like other congregations, instead of being brought together only to be preached to or preached *at*, as the case may be. It is certainly good policy not to lay too much stress upon their condition as patients, but here, as elsewhere, to recognize them as fellow Christians and fellow citizens, and to make them *en rapport* with us and at home with us in the common interests of life, as far as their circumstances admit of it. W. T. G.

ENGLISH CORRESPONDENCE.

THE FORTY-SECOND REPORT OF THE COMMISSIONERS IN LUNACY FOR ENGLAND.—As the apparent necessity for the existence of a Board of Lunacy Commissioners—especially when considered as protectors of the persons and properties of the insane—diminishes, their annual reports seem to increase in interest, and the contents of these reports form a most valuable collection of facts pertaining to the care and treatment of the insane in England.

The blue book now before us, comprising 391 pages, does not exhibit any signs of deterioration when it is compared with its companion volumes of previous years. The question whether insanity is on the increase in proportion to the relative increase of the population is one that still agitates the minds of our legislators, and the facts that several new asylums are in process of erection, or about to be erected, and that the older institutions are continually having additions made to their accommodation, all seem to point to a certain increase in the numbers of the insane. No doubt the various boroughs, as they extend in size and population, are beginning to see the importance of providing accommodation for their own insane; apart from this, however, we think that statistics prove a slight but steady increase in the number of the insane throughout the kingdom, even when the relative increase in the general population is taken into consideration. It would seem that, as a result of civilization and the enormous pressure at which existence is maintained at the present day, there is a tendency for certain forms of insanity—especially those the result of, or connected with, gross brain disease—to increase, and this is proved by the fact that the increase in numbers is most noticeable among males.

According to the Commissioners' report the total number of lunatics of all classes in England and Wales on the first day of January, 1888, was 82,643, being an increase of 1,752 since the same date of the previous year. Of these 7,795 are private, and 74,171 are pauper, and 677 are criminal patients; and they are distributed throughout the country in county and borough asylums, in registered hospitals, in licensed houses, in naval and military hospitals, in the criminal asylum at Broadmoor, in workhouses, and as private single patients and as out-door paupers. There is a decrease in the number of private patients; whether this is due to the continued depression in trade, or to an improve-

ment in the modes of treatment and to better accommodation for such cases in public asylums, it is difficult to say: perhaps both factors exercise some influence in this marked and steady decrease of private patients.

Table I in the commissioners' report is a most interesting one as showing the ratio of lunatics per 10,000 of the population from the year 1859 to 1888; the proportion was in 1859, 18.67, and at the end of last year it was 28.87; this is a slight increase when compared with the previous year, but the proportion is under that of last year when it was 28.98.

The admission rate has steadily increased during the past three years, and during 1887 there were 7,150 males and 7,334 females admitted to the different institutions for the insane in England and Wales. During the past ten years on only two occasions, viz.: in 1883 and in 1884, has the admission rate been higher, and the commissioners draw attention to the fact that there has been a steady increase in the admission of males as compared with the females.

The recovery rate is calculated on the admissions, and it seems to have fallen slightly during the past year. The recovery rate for 1887 was 38.56 per cent, and for the previous year it was 41.16 per cent—the average rate for the past ten years being 40.04 per cent. The percentage of deaths has likewise fallen slightly during 1887: thus in this year it was 7.59 per cent, and in 1886 it was 7.94 per cent—these proportions being calculated on the total numbers under treatment in the respective years. It may be noted that the death rate was highest in the metropolitan asylums; this is no doubt due to the large number of patients who are admitted to these institutions suffering from incurable diseases, the natural consequences of life in a crowded city.

The tables occupy sixty-five pages of the report, some of them are without interest and many of them are perfectly useless for all practical purposes. It is to be regretted the commissioners do not add a table showing the causes of the deaths in the various asylums under their official control. This, it seems to us, would be an easy matter, as now nearly every asylum publishes a table in its annual report showing the ages and the causes of death of every patient dying during the year the report refers to. That a uniform classification of the causes of death and the condition of the various organs as found in the *post mortem* room is much wanted is shown by the action of the Medico-Psychological Association, who have this year appointed a committee to draw up some

scheme of classification which, it is hoped, will be unanimously adopted in the various asylums. To the pathologist the importance of this subject is all the more evident when we state that 3,010 males and 2,590 females died in public institutions for the insane during the past year, and in a large proportion of these cases an autopsy was made.

TABLE SHOWING THE NUMBERS ADMITTED, RECOVERED, NOT RECOVERED, AND DIED DURING THE YEARS 1883 TO 1887.

YEARS.	Admissions.			Recoveries.			Discharged not Recovered.			Deaths.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
883.....	7,134	7,547	14,681	2,443	3,131	5,574	1,666	1,732	3,398	2,909	2,226	5,135
1884.....	7,177	7,335	14,512	2,491	3,284	5,775	2,284	2,824	5,108	2,952	2,380	5,332
1885.....	6,557	7,000	13,557	2,452	3,158	5,610	1,624	1,657	3,281	2,794	2,524	5,318
1886..	6,821	7,009	13,830	2,366	3,221	5,587	1,671	1,704	3,375	3,145	2,611	5,756
1887.....	7,150	7,334	14,484	2,386	3,127	5,513	1,654	1,765	3,419	3,010	2,590	5,600
Totals...	34,839	36,225	71,064	12,138	15,921	28,059	8,899	9,682	18,581	14,810	12,331	27,141

The above table shows at a glance the gradual increase in numbers of the insane, both as regards the admissions and the discharges: the figures in this table are derived from various sources in the pages of the commissioners' blue book, and goes far to show the large numbers with which the commissioners have to deal in their official capacity.

The professions or occupations of the patients admitted during the year 1887 is dealt with in Table XIV of the commissioners' report, and from it we gather the interesting fact that of 15,000 physicians and surgeons practicing in England and Wales, only twenty-four have been admitted as patients to one or other of the various institutions for the insane.

With regard to the social position and ages of those admitted we find that, according to the census of 1881 the larger number of the population was single, yet the married preponderate in the admissions, and the larger number was admitted between the ages of twenty-five and thirty-five.

TABLE SHOWING THE FORMS OF INSANITY IN THOSE ADMITTED DURING THE YEARS 1885 AND 1886.

FORMS OF MENTAL DISORDER.	1885.			1886.		
	M.	F.	T.	M.	F.	T.
Mania,	3,057	3,388	6,445	3,094	3,483	6,577
Melancholia,	1,298	2,086	3,384	1,338	1,994	3,332
Dementia, (ordinary,)	938	555	1,493	1,014	1,614	1,628
Dementia, (senile,)	242	279	521	295	286	581
Congenital Forms,	404	257	661	451	304	755
Other Forms,	406	248	654	520	231	751
Totals,	6,345	6,813	13,158	6,712	6,912	13,624

It can be calculated, by a reference to the figures of the above table and comparing them with those of the previous table, that the proportion of cases of incurable forms of insanity has increased during the two years recorded. Thus in 1885 the cases of "ordinary dementia"—to all intents and purposes an incurable form of insanity—represent 11.3 per cent of all the cases admitted, whereas in 1886 the percentage was 11.8. It is maintained by some authorities that cases of melancholia are on the increase, but this statement does not seem to be borne out by the figures in the above table.

Nine hundred and sixty-four male and two hundred and thirteen female patients were admitted during the year 1886 certified to be suffering from general paralysis: this is 8.6 per cent (14.3 per cent and 3.0 per cent respectively) of the total admissions, and is a slight increase on the numbers for the previous year, although less than those for 1884. The average age at which general paralytics were admitted was between twenty-five and thirty-five—somewhat under that given by most authorities on insanity. Seven hundred and fourteen of the total male admissions suffering from general paralysis were married—a fact borne out by our own experience, as we have found that the larger proportion of male general paralytics are married men.

During the year 1885 1,105 persons were admitted suffering from one or other of the forms of epileptic insanity, and during the following year this number was increased to 1,232, being nine per cent of the total admissions.

There is a slight increase in the number of those admitted presenting suicidal propensities; 3,944 or 28.9 per cent of those

admitted during 1886, and 28.4 per cent of those admitted during 1885 having been said to be suicidal. As might be expected the suicidal tendency exists most frequently among females, and in such forms of insanity as melancholia—the proportion of suicidal patients suffering from this disease being 60.2 per cent.

It is interesting, as showing the great care bestowed on the inmates of public asylums, to note that during 1887 only fifteen patients succeeded in committing suicide; when we consider the many opportunities for suicide that must exist in every large institution, and the difficulties attending the management of many suicidal patients, this fact speaks well for the supervision now exercised over such persons. The total number of deaths from suicide in public asylums during the past six years was only eighty-eight—a small number when we consider the large numbers under care during that time.

The average of the cost and maintenance in county and borough asylums during 1887 was 8s. 9¾d. per head per week, the rate being somewhat higher in the borough asylums. In the county asylums there is a marked decrease in the rate as compared with previous years. We fear that there is a tendency among medical superintendents to make the charge for their patients so low that it is utterly impossible sufficient attention can be given to the requirements of the patients under their care; no doubt this is done in order that they might find favour in the eyes of boards of guardians; nevertheless we consider it wrong to themselves and an injustice to the patients whose interests they should have at heart, that such a screwing down of the expenses is allowed.

The commissioners quote Chester as the county *par excellence* whose capita charge is least; here the rate is only 6s. 5d. per week per patient, and for this sum each patient is clothed, fed, housed, and obtains medical attendance! When we deduct the allowance granted by the Imperial Exchequer the charge to the various boards of guardians throughout the county is only 2s. 5d. per week. Now the cost of pauper lunatics in the various workhouses in this county is 3s. 8d. per head; consequently we may expect as a natural result that many cases not necessarily requiring asylum treatment are sent from the workhouses to the county asylum, the guardians recognising the fact that this latter method of getting rid of their pauper lunatics to be much cheaper than detaining them in the workhouse. As a result of this many people are deprived of their liberty, the asylum becomes over-

crowded with chronic incurable cases and in time the necessity arises for increased accommodation. Thus in the end there is no saving, the policy is short-sighted and founded on principles of false economy, and it is not at all conducive to a high recovery rate.

Perhaps the most interesting portion of the Commissioners' Report are the entries made on the occasions of their official visits to the various asylums under their jurisdiction. These reports show that enormous strides have been made, during the past decade, in the accommodation provided for the insane, and the means employed for their care and treatment. Space forbids us giving quotations from these reports, but we must not close this letter without heartily recommending a careful study of the whole book to all those interested in the welfare of the insane in England and Wales.

T. D. G.

CORRESPONDENCE.

PROJECT OF A LAW FOR THE COMMITMENT OF THE INSANE.

[We are gratified to notice the widespread interest in the draft of a law for the commitment of the insane which appeared in the October number of this journal. There is a great and pressing necessity for uniformity of the laws of the different States in regard to the method of committing the insane, and this form of a law has been issued by the Chairman of the Committee of the Commitment and Detention of the Insane of the National Conference of Charities, with a view to elicit the opinions of alienists, jurists and others throughout the United States. It is believed by that committee, that a full and free discussion of the several features of this bill will secure a body of facts and opinions which will enable them to draft a new form of a law that may, with such slight modifications as the laws of different States may require, be generally adopted. Pertinent to this discussion is the following letter of Hon. William L. Learned, of Albany, New York, one of the Justices of the Supreme Court of the Third Judicial District.—EDS.]

STATE OF NEW YORK,
SUPREME COURT CHAMBERS,
Albany, Oct. 31, 1888.

To the Editors of the American Journal of Insanity:

Gentlemen—I received yesterday a copy of the October number of the AMERICAN JOURNAL OF INSANITY, in which I notice an article by Dr. Stephen Smith entitled, "Project of a Law for the Commitment of the Insane, etc."

I have read the article with much interest. My attention to the present condition of our own law on this subject was called some months ago, by a proceeding taken before me under Section 11, of Chapter 446, Laws of 1874. The appeal was taken by a man by the name of Ayers and it resulted in his discharge. His arrest has given occasion for an action now pending in his behalf against the two physicians who signed certificates and the Recorder who approved.

On that hearing I stated that I could not discover that Section 1 gave any authority for commitment, but only provided restrictions, or that it specified who might be committed. I am inclined to think that for authority we must look to Section 1, Title 3, Chapter 20, Part 1 of Revised Statutes.

I further stated that on comparing Section 11 with Section 6 of the act above cited, the jury were to inquire whether "it would be dangerous to permit such lunatic to go at large." Probably if I had submitted the mere question of insanity to the jury (as the man

had harmless delusions) the jury would have found him insane. But he was, in fact, perfectly harmless, industrious and able to earn a living. Of course what the future might develop I could not tell ; nor do I now know anything about him.

It has been assumed by persons who have desired to place those who are alleged to be insane in asylums, that any one may get two certificates and an approval under Section 1, and that these papers are sufficient authority for any person to arrest and commit. In the case I have mentioned no overseer of the poor, no relative, no committee applied for the certificates or approval. The wife of Ayers did not live happily with him. She applied for an arrest on the ground that he did not support her. On the hearing before the magistrate Ayers talked not wildly, but as one with some delusions, and while he was in custody pending this proceeding, the magistrate sent the two physicians to examine him.

The ground of action of Ayers against the physicians is alleged negligence in the examination.

Now allow me to make some comments on Dr. Stephen Smith's project.

Section 1 is very excellent. It is a little fuller and better statement than Section 1 of Title 3 above cited from the revised statutes. I feel doubtful as to the last clause beginning "but nothing in this section, etc.," especially as a power is implied in justices of the peace. This is a very arbitrary power; "such measures as he may deem necessary." And Dr. Smith does not provide for the judge having proof before him of the necessity. To allow one man to restrain another without proof of the necessity is contrary to sound principle. The act should provide what kind of restraint may be exercised, and also what evidence should be given of its necessity.

Section 2. This is similar to Section 2 of the present statute. Practically it is not a sufficient safeguard, as I have found by observation. I have seen certificates made by duly authorized physicians which on their face showed ignorance and incompetence. A judge will certify to the qualification of any physician who makes the necessary affidavit. So that practically it rests on the mere affidavit of the physician to obtain his certificate. What does a judge know about the qualifications of a physician who applies for a certificate? Nothing at all. He is not required to do anything except to certify to the four qualifications mentioned in the act. And as to those he acts on the physician's affidavit.

Now this examination by competent physicians is one of the most important matters in the proceeding. Three years gives no

experience of any value. Ten would be better. And the qualifications should be decided upon by medical authority, perhaps combined with legal.

If Dr. Smith would provide that a physician who wished to be thus certified should apply to the General Term of the Supreme Court who should cause him to be examined by a committee of physicians, he would accomplish something. As it is now the section gives no practical protection against incompetent men. Furthermore, I think the number of examiners in lunacy should be limited—a certain small number in each county—say three or four—and all men of real experience in the matter.

Section 3. I think it is unsafe to give any power in this matter to justices of the peace. There are enough judges of courts of record to attend to the business. And personal liberty is too valuable to give power in such matters to officers of a lower grade.

Section 4. "On receiving the certificates of two examiners in lunacy from any other source." Now Section 3 wisely provided for an order (form C) to be made prior to the examination. This clause seems to be in conflict with that section, and to permit the judge to act on any certificates of any examiners, sent to examine by anybody—perhaps an enemy of the supposed lunatic.

I deem it quite important that every proceeding be originated by a judicial order and not without such order. There should always be a person who takes the responsibility of commencing the proceeding. In "Very Hard Cash," when Mr. Hardie wishes to imprison his son on a false charge of insanity, he induces a weak-minded relative to make the application so as to escape responsibility himself.

Section 5. "The judge shall act at his discretion." This is objectionable. You cannot try a man for larceny without a jury. You cannot recover a small sum of money without a jury. Liberty of person is still more valuable than money. Commitment as insane is a more fearful thing to a sane person than a sentence for a few years to a State prison. The alleged lunatic should have a right to a jury trial.

Under the old proceeding "*de lunatico inquirendo*" there was a jury trial. It may be doubted whether its denial would be constitutional. Constitution of New York, Article 1, Section 2. The constitution of this State preserves the trial by jury inviolate in all cases in which it has been heretofore used.

The constitution of the United States declares that no State shall deprive any person of life, liberty and property without due pro-

cess of law. Art. XIV, Sec. 1. Whether affidavits made in the absence of the party and a commitment made without notice to him, constitute due process of law, is doubtful. An accused person should have the right to face and hear his accusers.

And here I would remark that this proceeding "*de lunatico inquirendo*" is in force. Code Civ. Rev. Sec., 2,320, *et seq.* A committee of the person appointed under such proceeding has, I suppose, authority by virtue of his appointment to restrain the lunatic and confine him. And it is a question whether after a person has under those been declared insane and after a committee of his person has been appointed, whether Section 1 ought to apply:—"unless his insanity be established in manner and form prescribed in this act." It would seem to be unnecessary to have another trial and adjudication as to the fact of lunacy.

I have already referred to Title 3, Chap. 20, Part 1, Rev. Stat. Section one and two provide that it is the duty of relatives or of a committee to confine a lunatic, if they have or if he has the necessary pecuniary ability.

Section 3 provides that they may be compelled to do so.

Section 4 provides that overseers of the poor shall act in case of neglect or inability of relatives and committee.

Now I do not see that this subject is provided for in Dr. Smith's project, and I think that it should be stated who should or who may make the application (form B). That application too should show the ability or inability of the alleged lunatic, and if made by the overseers of the poor, it should show why they make it.

Should it be deemed best to permit some person other than relatives, committee and overseers to make that application, reasons should be given. So that the proceeding shall not be originated by a mere intermeddler.

Furthermore form B should be fuller. It should state facts, not conclusions; from which the judge can rightfully form a belief that the case comes under Section 1. For as it is very justly said in Dr. Smith's comment to that section. "It does not follow because a person is insane that he should be committed to custody."

In fact I am inclined to think that, (partly at least,) insane asylums are due to the selfishness of the sane. They would rather keep the disagreeable out of sight. It is more pleasant to sane people to have even a harmless lunatic placed within some enclosure where he cannot be seen, than to allow him to wander about and amuse himself with freedom. Perhaps the days when relatives of necessity kept harmless lunatics in their own homes were better for the lunatics and for their relatives.

Section 6. This is useless. You never can convict any one. Probably if any such wrong were committed the injured party could recover damages, which would be more satisfactory to him. I say probably, because judicial action has often been held exempt from civil responsibility. Besides I do not think it is wise to open an opportunity for a criminal action in such a case.

The proposed law reads "whoever through malice shall make, etc." Now suppose that through malice a physician makes a perfectly true and correct certificate, as he believes, should he be guilty of a misdemeanor? If he says just what is true and believes what he says, does it make any difference whether he hated the lunatic or loved him?

Another point. It is the recent policy of our legislature to embrace all enactments in regard to crimes in the Penal Code. The legislature has recently repealed numerous parts of acts where (like the present) something is declared to be a misdemeanor and a penalty thereupon is imposed. If any such provision as Section 6 should exist it should be made an amendment to the Penal Code. It is out of place here.

I have taken the liberty of writing you this long letter, in which I have mentioned whatever has struck me in Dr. Smith's project.

I have done this in the belief that neither you nor Dr. Smith will be unwilling to read suggestions on a matter of such great importance.

I am very truly yours,

W. L. Learned.

THE OTTO CASE REVIEWED.

To the Editors of the American Journal of Insanity:

Gentlemen—The following criticisms and reflections are suggested by reading the paper by Dr. J. B. Andrews in the October number of the Journal of Insanity: Otto shot his wife, November 14, 1884, at Buffalo, New York. Twenty-three days later he was placed on trial for murder, found guilty, and sentenced to be hung. The case was carried to the higher courts, and finally decided on the report of a medical commission, and Otto was executed sixteen months after the trial. This case was studied medico-legally in the July number of the *Journal of Inebriety* for 1886, and the conclusion reached that Otto was insane and irresponsible for the crime he had committed. This conclusion having been questioned, the purpose of this paper is to show the facts in evidence upon which it was based. The undue haste of the trial, and the

anxiety of the public, and prosecution for conviction, prevented many of the facts from being presented to the jury, which were sworn to, later, by many witnesses.

The following was the testimony on the heredity of the prisoner: Otto's grandfather, on the father's side, was insane and died in an asylum in Germany. Otto's father was a German shoemaker, who drank more or less all his life, and at times to great excess. He was a morose, irritable man, of violent temper, and finally entered the army and died at Andersonville prison in 1863. The prisoner's mother, now living, was always a nervous, eccentric woman, very passionate and irritable. For years she had been quarrelsome, and untidy in her appearance; has suffered greatly from rheumatism, and is a cripple. She is called by her neighbors "half crazy," and has a marked insane expression. Her ancestors in Germany were crazy; both her mother and an aunt died in an asylum. The evidence showing the prisoner's early life and history indicated clearly neglect and general poverty in a cheerless home—on the streets, in saloons, and in company with persons who frequent such places. He had beer at home, at the table, and from earliest childhood drank it with others. At eight years of age he was sent to school, and continued there until he was fourteen years old; spending his nights and mornings on the streets and about saloons, living more or less an irregular life. Then he went to work in a stove manufactory, where he remained for seven years, then went to learn the printer's trade; three years after he gave it up, and went into a candy store. About the time he entered the stove-works he began to use beer regularly, and was occasionally intoxicated. He drank at night, and at the period of puberty, gave way to great sexual excess, with drink. From this time up to November, 1884, (when the murder was committed), a period of over twenty years, he continued to drink more or less to excess, at short intervals. When twenty years of age he married in a saloon, and was so much intoxicated that he did not realize what he had done until the next day when he became sober. For a long time afterward his sexual excesses were extreme, and he was often intoxicated; then his mind began to fail and he became irritable and abusive. He was stupid at times, then would have a delirium of excitement and irritation, talking violently, and being angry with any one, with or without cause. He frequently quarreled with his wife; often both his mother and wife combined against him, and turned him out of the house. For several years he had been steadily

growing worse, and more violent and irritable in conduct; this often depended on the amount of money he could procure for drink. At times he would bring home beer, and his mother and wife would join him in drinking it. From the testimony it appeared that when about ten years of age he was thrown from a car, falling on his head, and side. He was taken up unconscious and sent to the hospital, where his ankle was found to be dislocated. Nine years before the homicide, while in a torchlight procession, he was struck on the head by a brick; a lacerated wound was produced, with unconsciousness, from which he recovered, but complained of severe headaches for a long time after. Four years later he was struck on the head by a mallet, knocked down and made unconscious, and recovered, complaining of headaches as before. Both of these injuries were marked by scars. For some years past a deep-seated delusion of his wife's infidelity had been steadily growing, also suspicions of intrigue and poisoning by his mother and wife, to get him out of the way. He imagined his wife was alone in her efforts to drive both him and his mother away. The mother owned a small house which they occupied, and he claimed it and was suspicious that it would be taken away from him. These delusions and suspicions were very intense when he was intoxicated, but at other times were not prominent. He attributed deep sleep, when intoxicated, to medicines put in his beer by his wife or others. He asserted that he heard voices at night, out in the street, plotting his death. On one occasion after a quarrel with his wife, he became depressed, and tried to commit suicide by swallowing the contents of a bottle of rheumatic medicine, supposed to be poisonous. On another occasion he placed some fire crackers under the lounge, firing them with a slow match, expecting to be blown to pieces. His drinking and violence had increased to such an extent that both his mother and wife complained to the authorities. He had been arrested six different times, and confined in jail. Once he served sixty days in the work house for violence and drunkenness. Two months before the murder he was sent to jail, and was delirious and confused; the police surgeon was in great doubt whether it was not a case of real insanity. The judge ordered his confinement so that he could be observed for a longer time. He had what the physician called alcoholic insanity, but after eight days' confinement was discharged as sufficiently improved to go out again. For a week before the murder he drank every night to excess and was as usual, quarrelsome and very irritable to all he came in contact with. He bought a revolver and

was taught how to use it, giving a fictitious name when he bought it, and greatly alarming the clerk by placing the pistol to his head and offering to shoot himself. The day and night before the murder he drank as usual, and had an altercation with his wife; was seen to follow her into the house and pistol shots were heard. Otto was seen to run out through the back yard, running against the door of a house in a dazed way, then walked out into the street and some hours afterwards was arrested in the store of a friend. He did not seem intoxicated, and talked of getting into a "bad job"—meaning the murder. At the station he was at first very talkative, told many stories of his wife's infidelity, but denied the crime—said nothing had happened. Later he was dazed and was silent. The jail surgeon found him in the afternoon of the murder in a cell, in a stupefied, confused condition, with no apprehension of the crime, and, although not apparently intoxicated, was nervous, restless and dazed. The next day this state of mental aberration continued, he talked but little, and stoutly denied the crime, saying it was all a conspiracy. His confused, dazed state gradually passed away and he seemed to realize his condition, but the delusion of conspiracy grew more positive. He believed that a scheme had been formed to keep him in jail so his wife and mother could secure his property. One reason he gave for his wife's infidelity was that she had done washing for the inmates of a bad house, and that he heard voices of persons out in the yard planning to get in and stay with her, and other more absurd reasons—all without the slightest basis of fact. His suspicions extended to others whom he believed to be always trying to cheat him. He claimed not to remember any events from a day or more before the crime until some days after when he awoke in the jail. He had evidently a faulty memory which had been noted in many things long before the murder. During these twenty years preceding the murder he had worked most of the time. The first few years the drink paroxysms were at night and seldom lasted longer than a day. Later they continued a week and were always preceded by excessive beer drinking. For years he had drank beer every day and stronger spirits at any time, but still was able to work with more or less satisfaction to his employers. Seven months before the execution I made a personal examination of Otto in the jail and noted the following facts. I found him pale and anæmic, with no indication of ill health. He had attacks of neuralgia in his head and shoulders from time to time, his appetite, nutrition and sleep seemed natural. His face was blank and stolid, eyes staring and unequal in size, talked in a slow

hesitating way, and changed with difficulty from one subject to another. Became very religious after confinement in jail, reading the Bible and praying often during the day. His ideas of God and heaven were confused and childish. He saw lights on the prison walls, and thought that God had something to say to him, and opening the Bible, the first verse he read, he believed it to be God's message to him. He often heard voices at night telling him various things; sometimes they were threatening, calling him bad names, and then he heard God's voice saying that he would not die but should live. The day before I made this visit a flash of light, like lightning on the wall appeared, and he found an explanation in this sentence from Jeremiah: "Is not my sword as a fire saith the Lord, and like a hammer that breaketh the rock in pieces?" He thought that his wife was still living and that the whole thing was a plot to destroy him, was very suspicious of every one; thought that everyone was trying to deceive him, and no one was true but God.

He said that all the stories about the murder were false, and that after a time God would bring back his wife to her senses, and she would live with him again. Said he would never drink spirits again and would live with his wife in quietness. He had no concern about the future, and was indifferent about the efforts made to stay his sentence. His mental powers, or capacity to realize what was said were dull and slow. He would stare, and ask with suspicious hesitancy "what you meant?" or "what was that?" Was unable to go from one subject to another unless the subject was often repeated and pressed on his attention. When he came to realize the topic, he talked in a confused, dogmatic way, asking questions as answers, and expressing great doubts. He recited the lies that had been told him, and inquired how he could believe anyone or anything? He heard voices in the street talking about him at night, and also the howling and barking of dogs, and thought that it was the work of enemies who wished to annoy him. He dreamed of going home and living with his family, and heard God speaking to him through these dreams. He described these dreams with great minuteness, and when laughed or sneered at, turned away with disgust and forgot them quickly. He doubted his mother and counsel who visited him; was sure that they lied to him steadily. He selected passages of scripture and applied them to his case, but without plan or idea except that God would defend him, and that the devil would finally be driven out. When pressed sharply to explain his inconsistency he turned

repeating the accusation with disgust. He was not greatly disturbed or annoyed, and seemed not to remember much that was said to him. When talking of himself was not boastful of what he had done. The past seemed enveloped in a mist, and the future of no moment and the present had no anxieties of moment. He saw different colored lights and interpreted them as God's answers or wishes to him. The jailor mentioned his defective memory, of asking for the same thing many times a day, even when it had been brought to him. He sent for a thing and then forgot that he had done so for a moment. He had been uniformally quiet in jail, read his bible and prayed many times a day and manifested no concern about anything in particular. A marked depression was noted where he had been injured on the head. Otto remained in the same condition up to death, cool and indifferent, and apparently unconscious of the crime or its penalty. Such was a general outline of the facts in evidence, and the notes of my personal study in Otto's case. A grouping of some general facts which are recognized by the profession as bearing on these cases will make clear some of the conclusions which will most naturally follow.

First. The toxic use of alcohol at intervals or continually is always followed more or less by brain paralysis and brain degeneration. Brain co-ordination and sense conceptions are impaired; hence accurate realizations of conduct and thought and their relations to surroundings are impossible. During the free intervals from drink the brain may regain some degree of health, but the impairment increases with each toxic state. Hence the inebriate is always more or less diseased and incapacitated to act rationally. The automatic nature of his life and brain work may cover up this fact; but change the surroundings and demands on the brain, and this incapacity is evident.

Second. An insane and inebriate ancestry is always followed by neurotic and degenerate descendants. All such persons have more or less mental unstable feebleness, and tendency to develop disease. The brain lacks in vigor and defects of reason and control are common. The development of insanity, inebriety or other allied diseases in such persons are always evidence of most profound brain incapacity and degeneration.

Third. A very intimate relation exists as a cause and effect between traumatism and inebriety. While this disease does not always spring from head injuries or blows, it is always more or less influenced by them. Hence a history of traumatism is a very important factor in determining the degree of degeneration or incapacity of the person.

Fourth. Not unfrequently the drink craze is only a symptom of insanity and is called the "inebriety of insanity." The victim is a reasoning maniac whose conduct and thoughts in the free interval give no evidence of his real condition. But when drinking the insanity is pronounced.

Fifth. An inebriate in jail, under conditions of forced abstinence may give no appearance of insanity or irresponsibility. His sane thought and conduct is no proof of his mental soundness. No apparent simulation or inconstant statements will of themselves be evidence of his sanity or insanity. The following summarized facts in the Otto case are along this line of inquiry, and are believed to fully sustain the conclusion noted in the former paper.

(1.) In Otto's case the proof of heredity was clear—an insane grandfather, and an inebriate father who was morose, irritable and violent when intoxicated. His mother partially demented who was always eccentric and irritable and called "half crazy" by her friends and neighbors. On her side a history of insanity was clear.

(2.) Otto's early training and history were most fertile fields for the growth of alcoholic or other forms of insanity. His early use of beer and later other forms of spirits, with a steady increasing irritability and disposition to quarrel when under toxic influence, marked the natural growth of brain disease.

(3.) The history of traumatism indicated a special cause which in all probability intensified and increased the degeneration which was coming on.

(4.) The delusions of his wife's infidelity, of persecution and intrigue against him, also suicidal impulses, were characteristic symptoms of brain disease from alcohol.

(5.) The crime followed most naturally from the excessive use of beer and spirits. A month before the homicide he had a similar attack and was sent to jail and regarded as insane from spirits.

(6.) The probability of an alcoholic trance stage at or about the time of the committal of the crime, was sustained by many facts—such as the absence of alcoholic stupor and the automatic unreasoning of his conduct, with evident unconsciousness of either act or thought.

(7.) The apparent premeditation in purchasing a pistol and efforts to become familiar with it, also threats of using it, were clearly the confused cunning of a maniac.

(8.) The crime itself was without any reasonable motive and no efforts were made to avoid arrest or the consequences. His history in jail either as a simulator or an imbecile with delusions

was marked by an evident unconsiousness of his condition or the crime.

(9.) The mental soundness or sanity of Otto could not be determined by any personal examination in jail, or study of any part of his history or the crime. Only from a general examination of all facts in the case could any clear conceptions be had of his mental health and condition.

(10.) The facts are evidence in Otto's case although lacking in some particulars, comprise a chain of general events that are most natural and common in other cases.

(11.) From these facts (supposing them to be true) the conclusion that Otto was both insane and irresponsible seems beyond all question and doubt. Yours truly,

T. D. CROTHERS.

Walnut Lodge, Hartford, Conn., November 28, 1888.

A CASE OF MANIA TRANSITORIA.

To the Editors of the American Journal of Insanity:

GENTLEMEN—In the summer of 1886 I received, through the post office, a circular letter from a physician residing in the far west, but whose name I have forgotten, desiring to know if, in my opinion, there was such a form of insanity known and described in the books as *Mania Transitoria*, and if so, whether or not I had ever seen a case. The writer stated further that he was then engaged in preparing a paper on the subject, based upon a case where this plea had been interposed in extenuation of crime, and that he had addressed the above interrogatories to all the medical superintendents of institutions for the insane in the United States. He proposed to incorporate the answers received in his paper, and promised to send a printed copy to each of his correspondents. As it is my habit to respond to all proper and reasonable demands made upon me for information upon matters falling within my line of study and observation, and more especially as I considered the questions propounded as of great interest in a medico-legal aspect, I replied to my correspondent with more than ordinary willingness. I stated that while I had never, up to that time, met with a case of transitory mania, such a condition was not incompatible with my theory of the genesis and nature of mind. I went on at some length to show that as mind is a function of brain matter I saw no reason why it should not, from sufficient causes, be suddenly and temporarily deranged or suspended, as other bodily functions are.

I looked forward with some interest for the opinions of my *confrères* upon this vexed question, and when the promised paper made its appearance I was glad to see that answers from as many as fifty superintendents of institutions for the insane had been received and recorded by the writer of the article. These answers or opinions, though evidently abbreviated, as mine was, by the essayist, were sufficient to show first, that *not one of the respondents had ever seen a case of mania transitoria!* and second, that a very large majority of them were unwilling to express any positive opinion as to the existence of such form of insanity, while still a few others were emphatic in their denials of the probable occurrence of such manifestation of disordered mental action!

The object of the paper was to show that no such disease as mania transitoria could possibly occur, and that the case of the prisoner, against whom the writer had testified as an expert, as well as all others in whose behalf such plea was interposed, were, in plain language, malingerers, and should be treated accordingly. The paper, though exceedingly interesting as expressing the opinions of a very sensible and well-informed physician, was especially valuable in its exhibit of the experience and opinions of more than fifty of the distinguished superintendents of our American hospitals for the insane.

By one of those singular and inexplicable coincidences which now and then happen to us all, about this time a patient was brought to this hospital laboring under a form of mental disturbance which I think will throw some light upon the question we are now considering. The patient was admitted to the hospital on the 16th October, 1886. He was thirty years old, of spare habit but apparently in good general health. His temperament was of a well marked nervous type. He never had epilepsy, and was strictly temperate in his habits. He was well educated, had agreeable manners, and bore in every respect the marks of a thorough gentleman. When admitted he seemed to be in a confused or stupid state of mind; refused to answer questions, and took no notice of what was going on about him. The next morning, after a good night's rest, he appeared perfectly rational and natural, and continued so until his discharge on the 8th of January, 1887. At my request, shortly after his admission, he prepared a brief history of his life, with a description of his periods of insanity as related to him by his family and others who were familiar with the inception and progress of his disease. The statement is in his own handwriting, and is as follows:

AUTOBIOGRAPHY.

My life seems to have been a curse to myself and all with whom I have come in contact. I am thirty years of age, was born and raised in Blount county, Alabama. My father and mother are both living. I have five brothers and three sisters all living and in good health. There was never any insanity in our family before I was afflicted. I commenced the practice of lewdness when I was only ten years of age, which I continued until I was twenty-one, and to such extent that I always looked pale and delicate. I never indulged in self-abuse to any extent. For three years after I was twenty-one, I tried every means in my power to reform my life, but alas! the passion had become so strong that it seemed to be a part of my very existence. When I was twenty-four I concluded to marry, which I did, but found little happiness. My wife bore me two children in a little more than two years, which have been very healthy. My wife and I then concluded that we would not have any more children, and not knowing any other way to prevent conception I used condoms sometimes but would withdraw most of the time. This I have continued for four years until it is but little or no pleasure to have sexual intercourse. But my desires are never satisfied, and I cannot go longer than ten days or two weeks without having night emissions. I was raised by religious parents and my educational advantages have been reasonably good. I have been engaged in teaching for ten years and have had good health most of the time. I had gonorrhœa in 1879. About one month after I took it there was a small white sore just back of the head of the penis, but was easily cured by using "yellow wash." In August, 1886, I was afflicted with something like insanity. I was in the school-room teaching and suddenly became very wild. Ran across the room, opened my knife, and called to the students, "Don't let him in, don't let him in, he will kill me." I had three other attacks in one week similar to the first, but not so bad. I did not try to hurt myself or any one else, and was easily controlled. These attacks lasted from three to five hours, during which time I was wholly unconscious. I quit teaching, rested awhile, and thought I was well. But at the end of two months I was again afflicted and tried to kill myself. This time I did not know anything for five hours. Four days afterward I had another attack which lasted three days and nights. When consciousness returned I was in the Alabama Insane Hospital. Did not know how or when I got there, who brought me, or anything that I did during the three days and nights spoken of. The first thing I knew after all these attacks was that my head was aching intensely which lasted for two or three hours. I have been subject to headache all my life. It is hereditary in my mother's family. This is a short history of my life. I cannot tell any difference in my mind now and twelve months ago more than my memory is not as good.

Respectfully, H. W. K.

Alabama Insane Hospital, October 20, 1886.

The foregoing history corresponds in every important particular with that given by the friends of the patient on his admission to the hospital, and all the facts are fully corroborated by witnesses of the highest character. I have deferred their publication, awaiting still further developments; but as there has been, up to

this time, no return of the insanity, there would seem to be no occasion for further delay.

While it is true that a single swallow does not prove the arrival of spring, and that it is never safe to generalize too rapidly or upon insufficient data, it must nevertheless be conceded that a single well marked, well authenticated case like the one above recorded, is sufficient to establish the possibility, at least, of the occurrence of a form of mental disease which has been doubted by many and seen by comparatively few whose opportunities for observation are of the most favorable and extended character.

Yours truly, P. Bryce.

Alabama Insane Hospital, Tuscaloosa, Ala.,
October 30, 1888.

NOTES AND COMMENTS.

CHARLES HENRY NICHOLS.—He whose picture forms the frontispiece of the present number of our journal has stood so long in the front rank of American superintendents of institutions for the insane, has been associated with so much of their work in the past, and is still so active in it that to most of our readers he needs no introduction.

We do not purpose here to enter upon the full estimate of his life and services, which despite the fashion of the hour seems to us out of place, except in memoir—may the time for that be far distant!—but rather to give such brief outline of his work and such salient points of his character that those seeing the picture may recognize the man.

Dr. Nichols was born in Maine in 1820. His academic training was in the schools of his native State and at Providence, R. I. His medical education was in the Universities of New York and Pennsylvania, graduating from the medical department of the latter in 1843. His tutorage in ministering to the insane was under Dr. Amariah Brigham in the State Asylum at Utica, N. Y., where he was chosen medical assistant in 1847. In 1849 he was appointed physician to the Bloomingdale Asylum in New York City, a position he resigned in 1852.

While still a young man in the thirty-second year of his age he was mentioned by Miss Dix and selected by President Fillmore to superintend the construction and take charge of the Government Hospital for the Insane at Washington, D. C. It was a great work demanding a capable, broad man every way, and the way that he administered his trust showed that the president had made no mistake in his choice. Men enough can be found to follow but those with the power to originate are few. In entering upon his duties Dr. Nichols found that the appropriation with which he was expected to purchase a site and complete the hospital was only one hundred and twenty thousand dollars. He took what there was and went to work. He abated not one jot from his high ideal, he curtailed in no respect the fair proportions of that model hospital, which, nowhere laid down in books, but differing from and better than any hitherto known, existed only in the fertile and comprehensive brain of the young man who then and there went resolutely about building it. There were local prejudices to be overcome, a public sentiment in favor of the hospital to be created and the insane of

the army and navy to be provided for in a manner befitting a nation's largess. Selecting, he purchased a site—in this he had the aid of Miss Dix—of two hundred acres overlooking the Capitol and the Potomac, a site to-day unrivalled by that of any hospital in the United States. Much of the appropriation went that way, but in this he was looking to the end and he was right. Having his plan displayed on paper, a plan twenty-five years in advance of its time, known as the echelon or receding front, as great an improvement on the linear or Kirkbride plan as that was on the quadrangular. With what remained of the appropriation he began to build, not the centre building, but the extreme wing. Again he was looking to the end and he was right. Organizing and overseeing everything as is his wont, working day and night, eking out the scanty appropriation by making bricks out of the very ground on which the buildings stood, he finished the wing and also found means to construct a well appointed lodge for the colored insane, thereby creating the first distinct provision for that class ever made, a provision so wise that it was afterwards copied in many of the Southern States. Still looking to the end he took the unfinished bath-room of a future ward for his own lodging, opened the hospital to the insane, set himself to care for and to cure them and asked everybody to come and see. Congressmen, wondering at a building finished within the appropriation came to look. They were State rights members, opposed on principle to the construction of any national work, and therefore prepared to vote against extending the hospital. And the doctor showed them everything, what they had themselves done there for the insane, and what in justice to themselves remained to be done. It was not for himself but for these afflicted ones that he was asking, and in his pleading their cause was glorified. Whoever has heard Dr. Nichols on hospital topics will understand this. And those members believed in him because he had faith in himself and in his work that it was worthy. Going away from that lesson, out of an open window of the upper ward came the clear sweet voice of one of the female inmates singing the familiar words in opera

"Then you'll remember me."

Of old was it said that the stars in their courses fought for the right, and this poor girl's singing went with them to their committee room enforcing the doctor's argument and they voted the appropriation, and the hospital was finished according to the original plan. He had looked to the end to some purpose; an end that

justified all his labor of love that built twenty-five of the best years of his life into those hospital walls. He saw his plan reproduced in Australia, in Newfoundland, and in many State institutions. At considerable pecuniary sacrifice to himself he doubled the hospital lands, he extended its accommodations, he kept the institution in everything abreast of the most enlightened curative treatment of the time, so that when after a quarter of a century they called him back to the Bloomingdale asylum, creating the office of medical superintendent for him, he left at St. Elizabeth a hospital of which one might be pardoned for being proud.

At Bloomingdale he has gone on organizing and building and doing for the best interests of the insane with the same high ideals and the same indomitable zeal that have always characterized his work. It is only what we should expect from our knowledge of the man.

His life has come to deserved honors. He held for a succession of years the position of president of the Association of American Superintendents of Institutions for the Insane, and is an honorary member of the Medico-Psychological Association of Great Britain; has received the honorary degree of Master of Arts from Union College of New York and that of Doctor of Laws from the Columbia University at Washington. These are but the stamp of that nobility of which his life is the constant exponent, a life generous in its impulses and lofty in its aims. Taking broad and scientific views of everything, he has been singularly free from the jealousy that would detract from the achievements of others, showing a spirit of magnanimity toward his enemies, and for those whom he counts as his friends, and their name is legion, a devotion most loving and loyal for which friendship is no name.

He writes well, and an article now and then from his pen makes us wish he would write more. In the jurisprudence of insanity those who remember the Mary Harris case do not need to be told how he stands. But his principal work as with all successful superintendents of institutions for the insane has been in the daily hospital routine whose record is silent but for its results. His great work for humanity here has seemed to us in its fidelity and completeness to have been done as that of one realizing the sacred obligation which the possession of great talents implies, and "As ever in the great task-master's eye."

In the Association of Superintendents he ranks in years and wisdom among the elders, but in progressive ideas, in lively interest, in all that makes for the welfare of the insane and in the generous

rivalry that forgetting self seeks only the common good, we count him still a young man. W. W. G.

THE INSANE IN INDIA.—Last year the government appointed a committee to investigate and discuss the question of the release of insane criminals confined in the asylums and jails of Lower Bengal.

We learn from a condensed report in the *Lancet* of November 17, 1888, that the manifestations of insanity in India are modified by various conditions. Of these the chief are the natural inoffensiveness and docility of the people, who in their excitement are more loquacious and abusive than actually violent. This affects to a great extent the character of their insanity, making them very amenable to mild treatment.

Among the predisposing and exciting causes of insanity in Bengal, ganja takes the place of alcohol. Its effects, though equally violent, are much more evanescent. A very large proportion of the graver crimes are committed under its acute influence, but under confinement and deprivation of the drug the mania which it causes rapidly subsides, leaving the man a quiet and trustworthy inmate so long as the exciting cause is withheld. A return to the drug is sure to result in a relapse. Its use, unless long continued, does not lead to organic changes, and it never appears as a cause of melancholia. Patients suffering from the latter form of insanity are said to be very untrustworthy.

General paralysis of the insane is practically unknown among the natives of India.

The committee states that chronic dements might often be released to the care of friends were it not that such unfortunates at home are treated like dogs, being starved, beaten and bound in chains.

SULFONAL.—This new hypnotic was discovered and named by Prof. Baumann, who with Prof. Kast, of Freiburg, tested its physiological effects first upon dogs, afterward upon normal human beings, and finally upon insomnious persons, sane and insane. Subsequently Prof. Cramer and Dr. Rabbas observed its action upon the patients in the Marburger Irrenheilanstalt. The papers by Prof. Kast and Dr. Rabbas were published in the *Berliner Klin. Wochenschrift* in April, 1888. Since then papers have been published by Mathes, Langgard and Rabow, Salgo, Rosin, Schwalbe, Rosenbach, Algeri and others in Europe, and by Sachs and Wetherill in this country.

There is remarkable unanimity of opinion in regard to its action, and from the mass of literature already published, the following conclusions are drawn:

The name of the drug is spelled in three different ways—sulphonal, sulfanol and sulfonal, preference being generally given to the last.

It is a crystalline, white substance, with a slight tendency to efflorescence when exposed to the atmosphere, and is readily pulverizable, emitting when triturated a slight odor of sulphur.

It is wholly tasteless, producing no dryness in the throat and no unpleasant after-taste.

It is best administered by placing the powder upon the tongue and then taking a swallow of water, or the usual dose of fifteen grains may be suspended in three or four drachms of cold water, to which has been added a small amount of gum arabic and syrup.

It should be taken immediately after preparation before it has had time to precipitate.

Mathes and Salgo regard the drug as only slightly sedative in mania and delirium, but all the other investigators think there is much promise for the use of the drug in the therapy of the insane. Algeri, of the Criminal Asylum in Ambrogiana, gives records of fifteen cases of mental disease, mania, melancholia, dementia and alcoholism in which the use of from one to four grams gave from one to five hours of calm and regular sleep, unaccompanied by either circulatory, respiratory or gastric disturbance.

All agree that it has but slight narcotic properties, and, according to Mathes, its use is contraindicated, when the insomnia is due to pain or an irritating cough.

It is somewhat slower than chloral in taking effect, but its action is more prolonged. It is considered more effective and safer than paraldehyde. It is said that its continued use does not induce a habit.

Although these experiments tend to prove sulfonal a very safe drug, even when there are cardiac and phthisical complications, it is well to act cautiously in its use until time and experience shall have assigned it its proper rank among the older hypnotics.

The Defective Classes in Prisons.—In the last number of the "Archives de L'Anthropologie Criminelle et des Sciences Pénales" Dr. Emile Laurent publishes a paper on the defective classes in prisons, which is of some interest. He divides the prison

population in France as seen by him, into two categories,—the floating and the fixed prison population. The first consists of accidental or occasional criminals, persons with presumably normal moral constitution, who, through crimes of passion or of interest, or even by accident come under the sentence of the law. They are rarely inmates of a prison more than once. After one sentence and serving of their time they are generally too astute to be caught again in the same way, or they are sufficiently free from inclination to commit crime to remain normal members of society.

The fixed population, however, is an entirely different class, and falls under two heads. The first comprises the mendicants and vagabonds, people incapable of gaining their own livelihood in external conditions and for whom the prisons are a sort of asylum. They are rarely admitted for actual felony, but they fill the prisons on arrests for vagabondage, &c. The second category comprehends the true criminal class,—that is, who are sent to prisons for habitual theft, murder, rape, habitual drunkenness, &c. He considers these habitual criminals to be almost invariably subjects of a hereditary taint, and he says, that in all cases where he could get particulars, he found this to be the fact; and of all the forms of morbid heredity, the most frequent, and leading all others, is alcoholism of the parents, especially of the father. After eliminating the floating population of the prisons, it could almost be said that they are peopled with the offspring of inebriates, the father an inebriate—the son a criminal, and generally a thief.

The author adopts fully the views of Lombrosa as to the organic origin of criminal tendencies, and while he admits that they bear hard on our usually received ideas of justice and responsibility he claims that he states only the facts, and that deductions are inevitable. A clinical fact well observed and demonstrated, he claims, is of more weight than presumptions based on metaphysical reasoning; and if the facts do not agree with received notions, so much the worse for the latter. Dr. Laurent gives, rather briefly, a number of histories of criminals illustrating his views, some of them striking enough, and all showing evidence of mental as well as moral defect. Nevertheless he thinks it possible that some of these moral idiots might be improved by proper surrounding, and training, but these are not afforded by the prisons under their present system of management. He says "one point in regard to which we do not hesitate to give an opinion is this: the herding together in the prisons is a detestable thing." He suggests that the prisons be provided with more numerous medical attendants,

who may be to the prisoners what alienist physicians are to the inmates of asylums, a proposition, which, while it is not likely to be put into practice, may yet be worthy of consideration. If criminals are morally insane through physical defect, it may be that in some cases at least, medical skill may step in to aid society in meeting the difficult question how to deal with crime, as we find it. The article is of value as a contribution from a practical prison physician, an experienced specialist in the study of the pathological side of criminality.

THE FIRST INSANE ASYLUM IN GREECE has just been opened in Attica. Heretofore the insane have been confined in convents.

OBITUARY.

HARVEY BLACK.

Harvey Black, M. D., Superintendent of the Southwestern Lunatic Asylum, Marion, Va., died at St. Luke's Home, Richmond, Va., October 19th, 1888.

Dr. Black was born at Blacksburg, Montgomery County, Va., August 27th, 1827. As a farmer's son, he acquired a common school education, and at the age of eighteen began the study of medicine. In 1847 he served as soldier and hospital steward in the Mexican war. He graduated in 1849 from the University of Virginia at the close of his first session, and began the practice of his profession in the town of his birth. In 1852 he married Miss Mary I. Kent, whose devotion and encouragement contributed in a large measure to his ultimate success. At the beginning of the civil war he was assigned duty as surgeon of the Fourth Virginia Regiment of Infantry, under his old Mexican war captain, at Harpers' Ferry. This regiment became a part of the renowned "Stonewall" Brigade, and it was in his capacity of surgeon that he formed the friendship of General Jackson. The war ended, Dr. Black resumed his private practice at Blacksburg, and at the time of the government appropriations for the establishment of agricultural and mechanical colleges in various States, he succeeded in locating one in his native town, and was himself made rector of the board of directors.

In 1872, he was elected president of the Virginia State Medical Society, and November 19th, 1875, appointed superintendent of the Eastern Lunatic Asylum, at Williamsburg, Va., entering upon his duties January 1st, 1876.

Administrative ability he possessed in a remarkable degree, but up to the date of his appointment he had had no experience as an alienist. In March, 1882, owing to an adverse political administration he was removed, and again retired to private life. In 1884, he was made one of a commission to select a site for a new asylum for the white insane in Southwestern Virginia. In 1885, although in poor health, Dr. Black was elected member of assembly. In May, 1887, the Southwestern Lunatic Asylum was opened for the reception of patients, and Dr. Black was made its first superintendent. He was then a sufferer from urinary calculus, and in October, 1887, underwent an operation for that disease.

He returned to the asylum in the spring of 1888, and remained faithfully at his post until October 5th. His last annual report was written almost entirely in bed. On October 8th, he underwent a second operation from which he never rallied.

The Board of Directors of the Southwestern Asylum at their November meeting passed suitable resolutions from which we quote:

> We desire to record our sense of loss and testify to the confidence and esteem in which we held him as a man, a friend, a physician, and a capable and trusted officer of this institution from its inception to the hour of his death. No community ever had a better citizen, no State a more patriotic son, no humane institution a more worthy chief. He was a man of sterling qualities; tried in many critical enterprises and found faithful in all. Wise in council, skilful in practice, fearless in duty, prompt in action, clear in mind, pure in heart, "every inch a man." A meek and lowly Christian, his whole life was consecrated to duty. Well may such a life and such a record serve as a guide and incentive to those who may follow in his footsteps.

IRA RUSSELL.

Ira Russell, M. D., died of pneumonia at Winchendon, Mass., December 19, 1888, aged seventy-four. Dr. Russell was born at Rindge, N. H.; graduated at Dartmouth College, and later at the New York University Medical School. He entered the United States Army as surgeon of the Eleventh Massachusetts Regiment, and subsequently served in several positions on the general medical staff and in the field. At the close of the war, he was honorably discharged as Brevet Lieutenant-Colonel. In 1875, he established "The Highlands," a home for nervous invalids, at Winchendon. He wrote a number of practical articles relating to his specialty, his latest contribution being a paper on "The Recruiting Ground for Insane Asylums," which appeared in our last issue. He was vice president of the New York Medico-Legal Society, a past vice president of the Massachusetts Medical Society, and a member of the Masonic Order and of the Loyal Legion.

JAMES A. EMMERTON.

James A. Emmerton, M. D., died at Salem, Mass., December 31, 1888, aged fifty-four. He was a graduate of Harvard, and studied surgery in Europe. In the late civil war, he served as surgeon to the Second Massachusetts Artillery. In 1866–67, he was an assistant physician at the State Lunatic Asylum, Utica, N. Y. He was a member of the Dunlap Society of New York, an officer of the Essex Institute at Salem, Mass., and a contributor to the Institute's publications.

QUARTERLY SUMMARY.

ALABAMA.—The passage of a law by the last legislature excluding imbeciles and idiots from the State hospital and limiting the admissions to the insane proper, has checked to some extent the applications for admission, but in spite of this, it is feared that the institution will soon again be crowded.

Dr. Bryce recommends that the power of discharging the harmless and incurable insane be vested in a Board of Medical Experts, not in any way connected with the hospital. This board appointed by the Governor, without compensation except travelling expenses, should convene at the call of the trustees as often as the demands for room might require. They should be empowered to examine every patient and should recommend for discharge everyone, who is either not insane, or if insane is probably incurable, harmless and capable, of living at home or in the county poor-house, without detriment to themselves or the community at large.

A bill embodying the essential features of Dr. Bryce's suggestion was recommended to the legislature by the board of trustees, but failed of passage.

DAKOTA.—During the summer an Assembly Hall was completed for the North Dakota Hospital for the Insane, and is now used for a chapel, ballroom, etc. A well equipped stage has been provided for amateur theatricals.

Two new ward buildings, one for each sex, heated by steam and lighted by electricity were accepted by the Board of Trustees in September and are now occupied. There are now 163 inmates under treatment, divided among eight wards thus affording a very complete system of classification. At present there are on the hospital grounds fully completed and occupied, seven brick and six wooden buildings, arranged on the detached plan.

At a meeting of the board held September 29th E. J. Schwellenbach was appointed steward, and Dwight S. Moore, M. D., assistant physician.

—We learn that Dr. R. Buchanan has been removed by the trustees of the Yankton asylum. He was appointed by the board as soon as it was granted full powers by the courts. It is alleged that combinations in the board are responsible for his removal and not anything he has done to merit discharge.

ILLINOIS.—At the Illinois Eastern Hospital for the Insane, Dr. D. L. Riese has been appointed an additional assistant physician, making the number six in all.

IOWA.—Thus far $361,000 have been expended on the new State hospital at Clarinda. The buildings are of brick with stone trimmings and slate roofs. They are fire proof and connected with each other by semi-underground passages. One contains the officer's quarters; one store rooms; one the boilers, engine, dynamos for electric lights, the large kitchen and the laundry; the south wing is three stories in height, contains six wards and has capacity for 240 patients. The farm comprises 512 acres.

Dr. P. W. Llewellyn, who has practiced medicine in Clarinda many years

and who has long been a trustee of the hospital at Mt. Pleasant and who is still president of the State Board of Health, is the superintendent. Dr. Aiken, who has been at Mt. Pleasant of late, takes the position of first assistant physician. It has been decided to take only male patients into this new hospital, and it will probably be three years before the north wing will be ready for women. Twenty-six counties in southwestern Iowa which heretofore have sent their patients to Independence, will hereafter send their men to Clarinda. One hundred and twenty-six male patients were transferred from Mt. Pleasant to Clarinda December 15th ult, and ninety from the hospital at Independence.

—The insane department in connection with the penitentiaries at Anamosa is ready for occupancy, but there will only be admitted into it for the present such convicts as have been transferred from the penitentiaries to the hospitals in times past and who still remain in these hospitals, consequently twenty-one convicts will be transferred from the Mt. Pleasant hospital and two from the hospital at Independence. The department for insane criminals in the penitentiary at Anamosa is a separate building constructed expressly for this purpose. Although within the general walls enclosing the penitentiary grounds, it is arranged so as to provide an airing court of its own. The building for the criminal insane is three stories in height and has accommodations for twenty-two persons on each floor. For the present the uppermost ward will be used for female convicts, and the ward on the second floor as a hospital ward for sick convicts. The plans of this institution contemplate the erection of other buildings so that when they are finished the women and the sick will no longer be retained in this structure.

—At the Mt. Pleasant Hospital a new boiler and coal house, engine-room, machine shop, wash house and drying-room have been built.

Massachusetts.—The following committee has been appointed by the Boston Medico-Psychological Society to consider the revision of the Lunacy Laws of Massachusetts: Theo. W. Fisher, M. D., Walter Channing, M. D., George F. Jolly, M. D., Charles L. Folsom, M. D., Phillip C. Knapp, M. D.

—Dr. Fisher gave the introductory lecture in the course on Mental Diseases at the Harvard Medical College, Saturday, October 6th. Instruction is both clinical and didactic, and most of the lectures are given at the Boston Lunatic Hospital.

—The following communication has been received by the City Council of Boston:

Boston, October 1, 1888.

To His Honor the Mayor and the City Council of Boston:

The Board of Directors for Public Institutions respectfully call the attention of your honorable body to the need of a new hospital for the insane.

The present hospital is inadequate in size and deficient in the conveniences and appliances for the proper care and successful treatment of the large and constantly increasing number of this unfortunate class coming under our charge.

The crowded condition of the Boston Lunatic Hospital for a number of

years past has been referred to in each annual report. Below is given the number of insane now in charge of the board, and the institution where they are located: At Boston Lunatic Hospital, 177; Retreat for Insane, Dorchester, 130; Worchester (Chronic) Hospital, 179; Worchester (New) Hospital, 110; Taunton, 79; Danvers, 93; Westboro, 113; Northampton, 20; Tewksbury, 42; Bridgewater, 14; a total of 976.

It seems to the board that it would be better that the city should have the immediate control of this number of patients in an hospital of its own; more cures might be effected and at a less cost.

One year ago there were 122 males and 125 females, total 247, at the Boston Hospital. Of this number more than fifty were compelled to sleep in the attics, using dark rooms and passage ways, intended for storage purposes. The removal of 130 patients to the Retreat for the Insane, Dorchester, (all of the most quiet and chronic cases,) gave some relief, but the commitments to the hospital since that time were 154, have again crowded it beyond its capacity, and the cases now there are of the noisy, violent and dangerous classes, requiring more separation and better accommodation than the hospital can furnish. There being but sixty-two single rooms, it is readily seen that the treatment required cannot be given to all. Few if any more removals can be made to the Retreat at Dorchester, that institution being filled, and the cases now at the hospital are of such a character they cannot be treated at the Retreat.

The rapid filling of the State hospitals is another potent reason for the city to make ready to take charge of all its own insane.

The hospital at South Boston contains but few of the necessary modern appointments for the care of patients; and the impossibility of remodelling or adding to it in its present location, that the inmates might receive the best care which philanthropy requires, science and experience can furnish, makes it imperative that a new hospital should be erected in the immediate future.

—Dr. Albert R. Moulton, formerly of the Worcester Asylum, has been appointed Commissioner of Charitable Institutions in the room of Frank B. Sanborn Esq.

Dr. Moulton was born in Parsonsfield, Me., in June, 1852. He was educated at Bowdoin College, where he received the degree of M. D. in June, 1876. Soon after graduation he was called to the Asylum for the Insane at Concord, N. H., as assistant physician, and from there to the McLean Asylum, Somerville. During the past eleven years he has been connected with the Worcester Asylum, occupying the position of first assistant since 1881. During the absence of the superintendent he has had sole charge of the asylum. He is widely and favorably known to the superintendents and trustees of charitable institutions.

A member of the board states that the action of the board in appointing an inspector who has been medically educated and who has made the subject of lunacy a special study, will have the approval of medical men, many of whom have recommended the selection of Dr. Moulton for the position. His appointment has been approved by the governor, and he has already entered upon the discharge of the duties of the office.

—At the Westborough Insane Hospital five clinics for the students of the Boston University School of Medicine have been held. The attendance has

averaged over thirty. Dr. Paine speaks highly of the success of this undertaking. Among other things practical instruction was given in the writing of commitment certificates, each student having a case assigned to him for such purpose.

MICHIGAN.—The joint boards of trustees at a recent meeting in Traverse City had under discussion the propositions of Dr. Stephen Smith, of New York, relative to a uniform law for the commitment of insane persons to asylums, and a committee was appointed to consider the matter.

—The reports of the Eastern Michigan Asylum and Northern Michigan Asylum just issued contain many new and valuable features. Statistical tables are introduced into Dr. Hurd's reports showing readmissions, deaths by years during the ten years the asylum has been in operation, and admissions, discharges and net annual increase, by years, for the same period. Bright's disease with insanity, epilepsy and insanity from inebriety are among the subjects discussed. A ten years' review of the work of the institution is a feature of decided interest.

—Studies of paranoia, organic dementia, general paresis and epilepsy appear in the report of the Northern Michigan Asylum. At the close of the biennial period this institution was very much crowded. Its accommodations have since been increased by the opening, in November, 1888, of a detached cottage for fifty male patients.

—A colony house for female patients has been established in connection with the Michigan asylum, on the "Hines farm," purchased by the asylum in 1887. The location of the cottage is on the banks of a lake, and its surroundings are attractive.

—Dr. Henry Hulst, of Grand Rapids, Michigan, has been appointed acting assistant physician to the Northern Michigan Asylum to fill a vacancy created by the absence of Dr. C. G. Chaddock, who has been granted leave of absence for one year to prosecute medical studies abroad.

—A most comfortable, substantial three story building has been erected in the rear of the Eastern Michigan asylum, for the accommodation of kitchen, laundry and shop employés. It is strictly divided by a central brick fire wall, the north half being devoted to female, the south to male employés. Each division upon the first floor contains a general sitting-room, bath-room and a suite of rooms—the latter being provided for the cook and his family upon the south, and the housekeeper upon the north side. No communication exists between the two portions of the building. All its apartments are well heated and ventilated and together make attractive, commodious quarters. The removal of the female employés' dormitories from the laundry building enables the superintendent to fit up in this place a large ironing room for the employment of patients. It is designed to send parties of twelve to fifteen patients daily, in charge of an attendant, to the laundry, the different halls going on successive days once in two weeks. It is the purpose to employ a disturbed as well as quiet class of patients in this work, the duty of the attendant being merely to direct and plan the work and see that no harm comes to those who engage in it.

—The statistics of the Eastern Michigan Asylum for the last biennial period show an appalling increase in the number of female patients suffering from paresis, organic dementia and degenerative forms of disease.

—Dr. Chaddock, assistant physician to the Northern Michigan Asylum, is translating Krafft-Ebing's recent work on Hypnotism.

—Members of the senior class of the University of Michigan spent part of a day at the Eastern Michigan Asylum, listened to a lecture upon forms of disease and practical points in the treatment of insanity, from Dr. Hurd, and were subsequently shown on the halls in sections of twelve by members of the medical staff. Cases illustrating the forms of disease mentioned by the superintendent were exhibited. The visit was thoroughly enjoyed by all and its effect upon patients was favorable.

—The county asylum for the insane at Wayne—the only county institution of the kind in the State—is under the management of the board of superintendents of the county poor. Under the old law pauper patients might be committed to this or to a State institution on the authority of two superintendents of the poor. Although this authority was taken from them by a subsequent law, and placed wholly in the hands of the judge of probate, the superintendents of the poor of Wayne have continued to exercise it in so far as their own institution is concerned, and have, on the certificate of two physicians, committed pauper patients to the county asylum from time to time. A recently appointed member of the board has discovered the illegality of the course and the opinion has been expressed that patients thus committed have grounds for action for false imprisonment.

—The efficacy of salol in catarrhal diseases of the bladder is fully confirmed by experience in four cases under treatment in the Eastern Michigan Asylum. One, a male, suffering from post hemiplegic dementia; one, a female, suffering from locomotor ataxia; the third, a female, suffering from general paresis; the fourth, a female, suffering from melancholia. Prompt relief was given in each case by the exhibition of the drug. Its withdrawal occasioned a return of ammoniacal odor to the urine. The care of the first three cases, all more or less helpless and one extremely untidy in habits, was rendered far easier by its use. In the fourth case a coincident rheumatic condition was much relieved. The remedy has undoubtedly a wide field of usefulness in vesical catarrh, particularly that met with in connection with organic cerebral and spinal disease.

—A suicidal female patient under treatment in the Eastern Michigan Asylum, attempted self-destruction by swallowing the contents of a small vial of carbolic acid of which she obtained possession through the carelessness of an attendant, who, in violation of rule, permitted the patient to follow her into her room. It is not known how much of the acid was actually taken into the stomach, but there was enough to impart a strong odor to the breath and the subsequent ejecta. It was impossible to induce her to swallow any amount of fluid, and one and one-half quarts of water thickened by the addition of white of eggs were injected into the stomach by the nasal tube (a soft catheter attached to the nozzle of a Hall's health syringe.) Just previous to the introduction of the liquid a hypodermic injection of apomorphia gr. 1-10 was

given. The tube was quickly passed and within three minutes the entire contents of the stomach (which in addition to the fluid contained much undigested food) were evacuated. After the one thorough vomiting all nausea ceased, and within fifteen minutes the patient was able to take and retain a pint of milk. She felt well on the following day and aside from a slight tingling of the lips and tongue sustained no unpleasant symptoms from the ingestion of the poison.

—Luther H. Trask, a pioneer of Kalamazoo, Michigan, died November 14, 1888, after a lingering illness. He was born in Millberry, Mass., in 1807, and removed to Kalamazoo in 1834 where he had always been a foremost citizen. For thirty years he was a trustee of the State lunatic asylum and most of the time president of the board.

—The trustees of the Michigan Asylum, Kalamazoo, have given the name "Fair Oaks" to the property known as the "Hines farm," purchased by the asylum a year ago. The two cottages already erected upon it have been designated the "Pitcher cottage" and the "Van Deusen cottage"—the first after the late Dr. Pitcher, of Detroit, the first president of the board of trustees. A third not yet finished will be called the "Palmer cottage." The cottage for male patients, located on the "Brook farm," is named after the late L. H. Trask, of Kalamazoo, the second president of the board. B.

Minnesota.—At the Biennial Meeting of the Legislature, which will take place next month, appropriations will be asked for, for some additional buildings for the Third Hospital at Fergus Falls.

New York.—At the annual meeting of the Board of Trustees of the State Insane Asylum, at Middletown, N. Y., Dr. Daniel H. Arthur was promoted from the position of *interne*, to that of third assistant physician. Dr. Joseph O. Reed, whose health had become somewhat impaired, started, on the 12th of September, on a trip to Australia, England and Sweden, in a sailing vessel, expecting to be absent about one year. During the past summer, Dr. Talcott, superintendent, has visited many asylums in the various countries of Europe, making a special investigation into the colony system for the insane at Gheel, in Belgium, and also of the cottage asylum at Ermolo, in Holland.

—"The chronic insane of New York county, who have heretofore been confined to wards on Blackwell's Island, are to be removed, in part, at least, to the pavilions recently built on the county farms at Central Islip, L. I. The commissioners have spent $200,000, they have bought 1,000 acres of land, and put up pavilion accommodations for three hundred patients. They now want a quarter of a million more to continue the beneficent work."

—The engine room of the private asylum at Amityville, was destroyed by fire early in December, involving a loss of $10,000.

—The seed sown by the State of Michigan has borne good fruit in New York in the adoption in the latter State of the policy of holding an annual conference of trustees and superintendents of State hospitals for the insane. The first of these joint meetings was held at the Utica hospital December 7, 1888. There were present trustees and superintendents from the Willard,

Middletown, Buffalo, Auburn and Utica institutions. A paper was read by Dr. J. B. Andrews, of Buffalo, on State vs. County Care, and a suitable resolution setting forth the desirability of State care for all the dependent insane was unanimously adopted. The discussions were free and animated. After the business of the meeting had been transacted, the meeting became an agreeable converzatione and a happy medium of interchange of thought and experience among the trustees and superintendents. The next joint conference will be at Willard, in June, 1889.

New Jersey.—The new building at the Trenton asylum progresses very slowly, but it is hoped that it will be ready to be occupied in the spring. The need of this addition is very pressing, as the main building accommodates only five hundred, and there are now in the asylum seven hundred and fifty-four. The last legislature passed an act authorizing the board of managers to appoint two additional assistants on the medical staff. At the meeting of the board November 14th, Dr. A. F. H. Gale was appointed fourth assistant. Dr. Gale is a graduate of the College of Physicians and Surgeons, New York City. The position of third assistant the board decided not to fill for the present. There are twenty-seven hundred insane in this State, with proper State provision for about seventeen hundred. There are several county asylums that care for those not sent to State institutions. The Commonwealth allows two dollars per capita per week to the counties that care for their own insane.

—Hudson and Essex counties have large institutions, with resident physicians, &c., and we are informed that the authorities of Camden county, where they have had much trouble in management, are about to change their system and appoint a resident physician.

—At the Morris Plains asylum, Dr. Giblet B. Pfoutes, formerly connected with the pathological department of the University of Pennsylvania, as Dr. Formad's assistant, has been elected pathologist.

North Carolina.—The Board of Directors of the North Carolina Insane Asylum held their annual meeting on the 5th of December. They resolved to ask the ensuing General Assembly of the State to make an appropriation for the enlargement of the hospital. The superintendent of the institution was made clerk of the board.

Ohio.—At the Toledo Asylum for the Insane, there have been admitted one thousand and fifty-six patients from January 6th to November 15th. With more than two-thirds of the patients in buildings without screens to the windows there have been but four window panes broken by persons attempting to get away. Thanksgiving Day was appropriately celebrated in the dining-hall. Other exercises consisted in a parade of patients behind the Asylum Fire Brigade, and a masked ball in the evening.

Pennsylvania.—Dr. M. S. Seip, for eleven years assistant physician at the State Hospital, Danville, recently resigned to engage in private practice. Dr. E. F. Aldrich, assistant physician for three years, resigned to pursue

medical studies in New York. Dr. Charles E. Mayberry, of the Harvard medical school, and Dr. Theodore Dillon, of the University of Pennsylvania, fill the places thus made vacant.

—At a session held October 27th ult., the Society of Mental Medicine of Belgium elected Dr. John B. Chapin of the Pennsylvania Hospital for the Insane, Philadelphia, an honorary member.

TEXAS.—Work is progressing rapidly on the additions to the North Texas Hospital at Terrell. The building is badly needed, as hundreds of cases are confined in the dark, filthy and unhealthy jails about the State, and many who are curable at present have to be deprived of asylum supervision and treatment.

VERMONT.—The Vermont legislature which has lately closed its biennial session, passed an act authorizing the establishment of a State Asylum, and appropriated one hundred thousand dollars for the beginning of the work. A site has not yet been selected.

WASHINGTON TERRITORY.—A patient, a strong Irish woman about fifty years of age, who has been for years in the hospital, and who is a faithful worker in the laundry as ironer, and who nevertheless is very insane, has to be carefully watched to prevent her drinking any kind of medicine that she can get hold of. A few evenings ago the night attendant gave some chloral solution to a patient for whom it was prescribed at bedtime. This patient was in the dining-room where the medicine was given, and sat up a while longer alone with the attendant, who thoughtlessly left the room a few moments with the solution of chloral on the table. The patient at once poured out nearly a teacupful and swallowed it. She drank probably four ounces of the solution—sixty grs. to the oz. On the attendant's return, after a few moments she discovered something wrong with the patient and at once called the superintendent who had gone to bed. On reaching the scene a few minutes later he found the patient lying on the floor unconscious, face purple, breathing stertorous, pulse weak and intermittent, and stomach enormously distended. Having no stomach pump, he introduced the nasal feeding tube and with a syringe threw in a large amount of hot coffee, which happened to be at hand. This was followed by mustard water, until so much was injected that it poured out of the mouth and nostrils and was assisted by pressure on the stomach. The mustard and water was repeated and the stomach emptied about half a dozen times. During this time the assistant physician was busy administering hypodermic injections of whiskey. After a hard struggle of an hour and a half, the first signs of consciousness made their appearance, when she was put to bed and surrounded with bottles of hot water. In the course of another hour she was out of danger. She is still confined to bed very much prostrated, three days after the occurrence, but bids fair soon to be as well as ever. She is always molested at nights by invisible tormentors, and as her throat is quite sore from the use of a spoon handle to assist vomiting, she calls attention to it as proof that her persecutors have got the best of her while asleep. The chloral was not taken to commit suicide, but from a vicious habit.

WEST VIRGINIA.—At a meeting of the Board of Directors of the West Virginia Hospital for the Insane on the 17th of November, Dr. J. S. Lewis was made superintendent in place of Dr. W. J. Bland, (resigned.)

—Dr. Lewis served as assistant for eight years in the West Virginia hospital.

—Dr. J. I. Warder was promoted from the position of druggist to that of assistant physician.

WISCONSIN.—The following are recent changes in the medical staff of the Milwaukee Asylum at Wauwatosa, Dr. M. J. White since June 1, 1888, acting medical superintendent, was appointed superintendent, December 13, 1888, Dr. W. Alfred McCorn late of New York city asylum, appointed first assistant physician, Dr. Ashley Scovel also of the New York city asylum, appointed second assistant physician.

CANADA.—The fifty acres which were formerly included in the Toronto Asylum grounds have been sub-divided and twenty-four acres put upon the market for sale. Being in the city it is estimated that at least $20,000 per acre will be realized. This leaves only twenty-six acres for asylum purposes. New brick walls have been erected on the new boundaries which have been built largely by asylum labour out of the old material.

The money from the sale of the twenty-four acres is being used in the erection of a village of cottages on the lake shore about six miles from the city. Three hundred thousand dollars will be expended on these buildings during the next three years. This village will be the nucleus of a new asylum.

—Dr. Daniel Clark, medical superintendent of the Toronto Asylum has been appointed by the government, Professor of Psychology and Mental Diseases in the University of Toronto.

—We have received the following from Dr. Buck, superintendent of the London Asylum:

"A year ago (See JOURNAL, January, '88, p. 454) the kitchen and laundry at London Asylum were destroyed by fire. The new building which is to take the place of that burned is nearly completed. It is larger than the old and will contain upstairs a large well planned amusement room 54x92 feet. Besides this new building the government is providing the asylum with system of fire protection consisting of a central pumphouse (connected with large tanks, which in turn are supplied from the well) and underground pipes with hydrants wherever they can possibly be reached. The government is also adopting here the system of sewage disposal known as the "intermittent downward filtration" system. These improvements will not be completed until some time in the summer of 1889. When all are in operation the asylum will be greatly improved by them.

In the last seventeen years we have made (though not intending it in that way) an immense experiment in the use and disuse of alcohol at this asylum a brief statement of which may be of interest. From 1872 to 1876 (both years inclusive) we used at this asylum alcoholic stimulants at the rate of $3.50 worth per patient per annum. Our average number of patients during

that period of five years was 555—the total number of individual patients treated was 1,068—the average death rate for the five years (year by year) was 5.5 per cent, and the recovery rate reckoned upon the admissions (year by year) average (including those discharged "improved") was 40.19 per cent. During the next five years, 1877 to 1881 (both years inclusive) we used alcoholic stimulants at the rate 3½ cents worth per patient, per annum. Our average number of patients under treatment during this period was 711, and the total number of individual patients treated was 1,440 the average death rate for this five years (year by year) was 4.5, and the average recovery rate reckoned (as before) upon the admissions year by year and including those discharged "improved" was 41.29 per cent. During the next seven years 1882 to 1888 (both inclusive) we used no alcohol in any form, the average number of patients under treatment for the whole period was 905, the total number of individual patients treated 1,752, the average death rate for the seven years, reckoning as before year by year, 4.3 per cent, and the average recovery rate, (including those discharged improved) was 43.37 per cent, of the admissions—so that using much alcohol, little alcohol no alcohol—the death rate steadily fell and the recovery rate as steadily rose. In tabular form our experience may be expressed as follows:

TABLE SHOWING THE RESULTS OF THE DISCONTINUANCE OF THE USE OF ALCOHOL AT THE LONDON ASYLUM.

YEARS.	Average number patients under treatment during the period.	Number of individual patients under treatment during the period.	Value of alcoholic stimulants used per patient per annum during the period.	Average yearly death rate reckoned upon whole number under treatment.	Average recovery rate year by year reckoned upon the admissions.
1872—1876	555	1,068	$3.50	5.5	40.19
1877—1881	711	1,440	3½	4.5	41.29
1882—1888	905	1,752	0	4.3	43.37

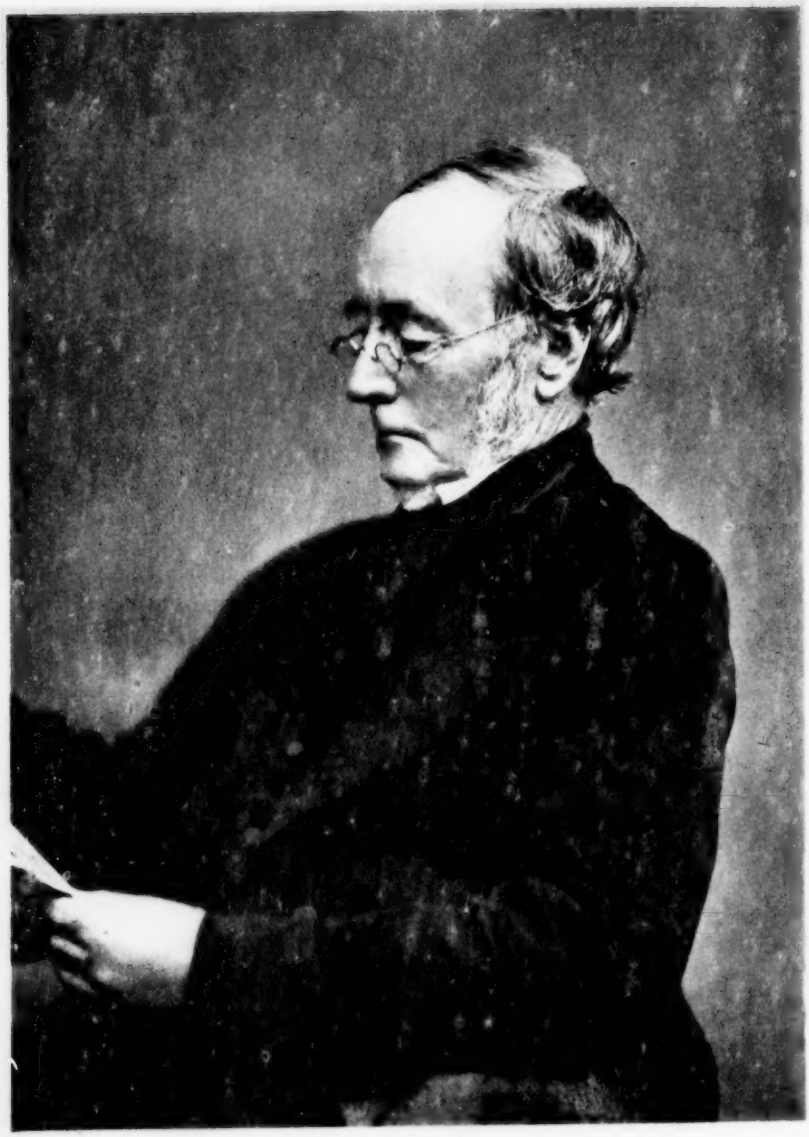
It will be noticed that not only did the death rate fall and the recovery rate rise with the discontinuance of the use of alcohol but that the death rate at least fell *in proportion* to its discontinuance. From $3.50 to 3½ cents is a large drop, so is from 5.5 to 4.5, from 3½ cents to 0 is a small drop, so is 4.5 to 4.3. I may say that nothing was given to replace the alcohol and I know of nothing else to have influenced the death rate and recovery rate except the disuse of alcohol.

It is now over five years since we used in any case either restraint or seclusion at this asylum, and since abandoning these we have been able to discontinue canvas (strong) dresses. No sedatives have been given to take the place of restraint.

The average proportions of our patients employed day by day is a little over 8-9, i. e., a little over 800 out of a total population of about 900.

We have not fed any patient with a tube for over four years.

For the total discontinuance of restraint at this asylum our present Inspector, Dr. O'Reilly, should have the chief credit."



very truly yours
Joseph Workman

AMERICAN
JOURNAL OF INSANITY.
APRIL, 1889.

THE ENCEPHALIC CIRCULATION AND ITS RELATION TO THE MIND.

BY HENRY SMITH WILLIAMS, M. D.,
Assistant Physician, Bloomingdale Asylum, New York City.

Of old, it was denied that organic changes have even coincidence with psychic manifestations; but to-day, he who would aspire to be a *connoisseur*, or even a dilettant, in matters of the mind must know something of the mechanism in which mind finds its habitat. Every one now recognizes the importance here, as elsewhere, of practical inductive studies; and just at present problems pertaining to the dynamics of the encephalon are attracting especial attention. Of salient importance, it is everywhere admitted, is the circulatory apparatus. Alienists differ in opinion as to the exact relation which it bears to the *ego*, but all concede that the blood supply is one factor in the genesis of mind; and not only so, but that it is an absolutely essential one, and the one most easily demonstrable. And this latter fact gives it a fresh charm; for the modern mind clings ever to the tangible.

It is the purpose of the present paper to give a brief outline of the conditions under which the encephalic circulation is carried on; and, while steering as far as may be from controversial rocks, to make what seem to the writer some fairly warrantable suggestions as to the connection between vascular changes and mental states, normal and abnormal. But before entering upon the subject specifically, a prefatory word seems advisable—nay necessary—to prevent a possible misconception. While the present paper will, in keeping with its heading, deal almost exclusively with vascular conditions as somatic concomitants of psychical states, I would not be understood as wishing to relegate to the circulatory apparatus exclusively the conduct of the intellect. On the contrary, I recognize fully the salient importance of the "nervous" element, as being not only antecedent to the vascular

change, but its consequent as well, and, indeed, at all times its indispensable co-worker. My intention here is merely to present the more elementary, but more often neglected, phase of the subject, leaving the complementary aspect for consideration in a subsequent paper. So intimately associated are the two, however, that we can scarcely hope to be able to rigorously confine ourselves within the bounds of our subject; but we shall not cross them oftener than seems unavoidable. We will first study the conditions under which the encephalic circulation is carried on.

These conditions, in themselves, are not greatly involved. They are, however, organically unique. Elsewhere the blood vessels are encased in soft, yielding tissues, subject directly to the atmospheric pressure. The volume of a limb may vary considerably, and its outline is constantly undergoing variations, both as to contour and environmental influences; but the skull case is fixed, unyielding and invariable. It is true that there are openings into it, to transmit soft tissues (vessels and nerves) but these are altogether inconspicuous in size, as compared with the entire area of the skull surface; and their lumen is completely filled with tissues, which, though slightly yielding, are constantly under considerable pressure; so that, for all practical purposes, we may safely disregard them, and speak of the skull as a perfectly inelastic encasement.

It need hardly be mentioned that the cavity of the spinal column forms a simple continuation of that of the skull, and that both are subject to the same conditions. In proportion to its size, the spinal canal has more openings in its bony casement than has the cranial cavity, but these are filled with very tough, inelastic, fibrous matter, and, in most positions of the body, subjected to increased pressure. It can hardly fail to be apparent, therefore, that a force sufficient to distend them, if applied to the brain, could not well be borne by the delicate cerebral tissues. Nor, indeed, could such a force be supplied by the tenuous cerebral arteries. We are thus forced to accept as one of the conditions of our problem, the practical inelasticity of the walls of the entire cavity in which lies the cerebro-spinal nervous mechanism.

Throughout the cavity, there must be a constant tendency to equalization of pressure, subject only to variations due to gravitation; and it is evident that the same fundamental physiological conditions must pertain to both encephalic and spinal circulations; but for convenience we shall confine our attention to the former.

Given our closed cranial cavity, then, what are its contents?

Generally speaking, these may be referred to as semi-solids and liquids. Free gases do not occur in the living brain, and solids are inconspicuous. The protoplasm which makes up the mass of the brain, is itself really a liquid, but a mass of fibrous tissue gives it comparative stability, and we may conveniently refer to it as the semi-solid portion of the encephalon.

The liquids present are lymph, a clear serum, and the blood; the two former being, of course, derivatives of the latter. The bulk of the brain tissue is far too inelastic to admit of absolute condensation under slight pressure; and molecular changes cannot be sufficiently rapid to essentially alter its amount momentarily. We are therefore justified in predicating comparative constancy of size of the semi-solid portion of the encephalon. From this it follows, that the absolute amount of liquid in the cranial cavity must also be a constant. If, then, there is to be a change in the aggregate amount of blood supplied to the brain, there must be a compensatory fluctuation of the complementary fluids, the serum and lymph.

Such changes undoubtedly occur, and they furnish some of the most important problems connected with cerebral dynamics. How are they to be explained? Certain old time writers said that the serum was pressed down into the spinal canal when the blood supply to the brain increased, and returned when it diminished; but it does not appear as to what they assumed to be done with the liquid which already filled this cavity. Some more recent writers have explained that the fluid of the sub-arachnoidean space is simply transferred to the ventricles when the blood increases; but they also fail to mention the disposition made of the ventricular fluid already inconveniently present. Such explanations as these, occurring in important and authoritative works, prove that the subject is widely misunderstood. The difficulty has resulted from carelessness in examining the existing physical conditions. It is only necessary to call attention to these, to prove that any absolute increase of blood supply can be explained in no other way than by supposing a corresponding diminution in the quantity of serum or of lymph present in the entire cerebro-spinal cavity. If a cubic centimetre of blood is to be added to the quantity already circulating within the cranium, a cubic centimetre of serum or lymph, must be altogether removed from the encephalon. This fact being self-evident, it remains only to explain the process by which this removal is brought about.

Only two possible channels present themselves: the lymphatic

medical studies in New York. Dr. Charles E. Mayberry, of the Harvard medical school, and Dr. Theodore Dillon, of the University of Pennsylvania, fill the places thus made vacant.

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—Dr. J. I. Warder was promoted from the position of druggist to that of assistant physician.

Wisconsin.—The following are recent changes in the medical staff of the Milwaukee Asylum at Wauwatosa, Dr. M. J. White since June 1, 1888, acting medical superintendent, was appointed superintendent, December 13, 1888, Dr. W. Alfred McCorn late of New York city asylum, appointed first assistant physician, Dr. Ashley Scovel also of the New York city asylum, appointed second assistant physician.

Canada.—The fifty acres which were formerly included in the Toronto Asylum grounds have been sub-divided and twenty-four acres put upon the market for sale. Being in the city it is estimated that at least $20,000 per acre will be realized. This leaves only twenty-six acres for asylum purposes. New brick walls have been erected on the new boundaries which have been built largely by asylum labour out of the old material.

The money from the sale of the twenty-four acres is being used in the erection of a village of cottages on the lake shore about six miles from the city. Three hundred thousand dollars will be expended on these buildings during the next three years. This village will be the nucleus of a new asylum.

—Dr. Daniel Clark, medical superintendent of the Toronto Asylum has been appointed by the government, Professor of Psychology and Mental Diseases in the University of Toronto.

—We have received the following from Dr. Buck, superintendent of the London Asylum:

"A year ago (See Journal, January, '88, p. 454) the kitchen and laundry at London Asylum were destroyed by fire. The new building which is to take the place of that burned is nearly completed. It is larger than the old and will contain upstairs a large well planned amusement room 54x92 feet. Besides this new building the government is providing the asylum with system of fire protection consisting of a central pumphouse (connected with large tanks, which in turn are supplied from the well) and underground pipes with hydrants wherever they can possibly be reached. The government is also adopting here the system of sewage disposal known as the "intermittent downward filtration" system. These improvements will not be completed until some time in the summer of 1889. When all are in operation the asylum will be greatly improved by them.

In the last seventeen years we have made (though not intending it in that way) an immense experiment in the use and disuse of alcohol at this asylum a brief statement of which may be of interest. From 1872 to 1876 (both years inclusive) we used at this asylum alcoholic stimulants at the rate of $3.50 worth per patient per annum. Our average number of patients during

that period of five years was 555—the total number of individual patients treated was 1,068—the average death rate for the five years (year by year) was 5.5 per cent, and the recovery rate reckoned upon the admissions (year by year) average (including those discharged "improved") was 40.19 per cent. During the next five years, 1877 to 1881 (both years inclusive) we used alcoholic stimulants at the rate 3½ cents worth per patient, per annum. Our average number of patients under treatment during this period was 711, and the total number of individual patients treated was 1,440 the average death rate for this five years (year by year) was 4.5, and the average recovery rate reckoned (as before) upon the admissions year by year and including those discharged "improved" was 41.29 per cent. During the next seven years 1882 to 1888 (both inclusive) we used no alcohol in any form, the average number of patients under treatment for the whole period was 905, the total number of individual patients treated 1,752, the average death rate for the seven years, reckoning as before year by year, 4.3 per cent, and the average recovery rate, (including those discharged improved) was 43.37 per cent, of the admissions—so that using much alcohol, little alcohol no alcohol—the death rate steadily fell and the recovery rate as steadily rose. In tabular form our experience may be expressed as follows:

TABLE SHOWING THE RESULTS OF THE DISCONTINUANCE OF THE USE OF ALCOHOL AT THE LONDON ASYLUM.

YEARS.	Average number patients under treatment during the period.	Number of individual patients under treatment during the period.	Value of alcoholic stimulants used per patient per annum during the period.	Average yearly death rate reckoned upon whole number under treatment.	Average recovery rate year by year reckoned upon the admissions.
1872—1876	555	1,068	$3.50	5.5	40.19
1877—1881	711	1,440	3½	4.5	41.29
1882—1888	905	1,752	0	4.3	43.37

It will be noticed that not only did the death rate fall and the recovery rate rise with the discontinuance of the use of alcohol but that the death rate at least fell *in proportion* to its discontinuance. From $3.50 to 3½ cents is a large drop, so is from 5.5 to 4.5, from 3½ cents to 0 is a small drop, so is 4.5 to 4.3. I may say that nothing was given to replace the alcohol and I know of nothing else to have influenced the death rate and recovery rate except the disuse of alcohol.

It is now over five years since we used in any case either restraint or seclusion at this asylum, and since abandoning these we have been able to discontinue canvas (strong) dresses. No sedatives have been given to take the place of restraint.

The average proportions of our patients employed day by day is a little over 8-9, i. e., a little over 800 out of a total population of about 900.

We have not fed any patient with a tube for over four years.

For the total discontinuance of restraint at this asylum our present Inspector, Dr. O'Reilly, should have the chief credit."

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THE AMERICAN JOURNAL OF INSANITY is published quarterly, at the State Lunatic Asylum, Utica, N. Y. The first number of each volume is issued in July.

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